Log4OM 2 Amateur Radio Software By Daniele Pistollato IW3HMH





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UDP Log4OM Remote Control interface
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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.

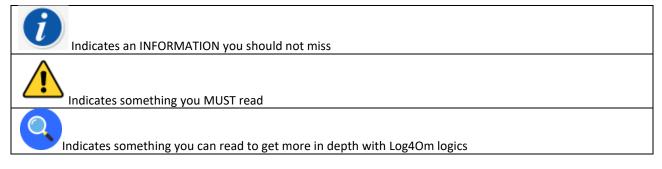
- Integrated with online logbooks for LOTW, eQSL, QRZ.com, HamCall, Clublog, HamQTH, HRDlog.net etc.
- Integration with N1MM, PSTRotator, QARTest, WSJT-X, JTAlert, Gridtracker, EESDR 3.0, FLDigi etc.,
- Intelligent cluster aggregates the information from multiple cluster servers and HRDLog Super cluster 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'.

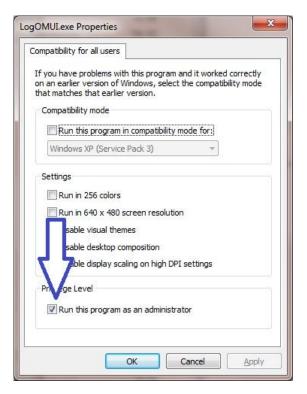
If users wish to synchronise CAT control with multiple programs it is imperative to use Omnirig and to set <u>Omnirig</u> and all programs sharing the <u>Omnirig CAT control</u> multi-threading to run as an administrator as follows:

- 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 rsion.		l it worked correctly ompatibility mode th
	atibility mode			
	Run this progra	m in compa	tibility mo	de for:
Wi	ndows XP (Sen	vice Pack	3)	*
Settin				
	igs 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.

♥ ♥ 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 National	My Postcode	CM0 8EY	
External Services		National 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 ©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 Backup			
VOACAP Propagation			
- Auto Start			
Chat			
Hardware Configuration			
- Audio devices and voice keye 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 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 Station configuration	Database name	Database name log4om2
···· Confirmations ···· 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 └── Cluster Alert ⊖─ Info Providers └── Configuration ·── Map Settings		This action will create a NEW DATABASE. If used over an existing database it will REMOVE ALL DATA
Backup VOACAP Propagation Auto Start 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 O No check O Basic O Deep		Duplicates threshol	d 0	•	sec.
Save log							
The import may take some time because of validating historic DXCC values against prefit 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 Configuration ID 51f59f84-34a1-4e93-8abb-4c3142514ce5 ACTIVE Description New config Create desktop shortcut Add New Delete Make Active 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'

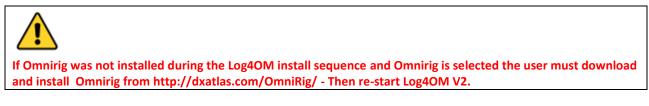
Radio CAT Control

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 We suggest use of the RED by PTT Toggle mode	440Hz tone towards the radio audio interface
Chat 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 🤟 🤟 🕹 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 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 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
 Hardware Configuration Audio devices and voice keye CAT interface CW Kever interface 	*****

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	● ■ 014.182.2	00 🚥 💷 💷		тх	014.343.200 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 8Z3FD	RM2D II7WRTC			OE3WMA 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 ♥ () 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 tween commands
- My References - Station configuration - Local weather - Confirmations - Database - External Services - User preferences - Award preferences - Software Configuration - Cluster - Cluster Alert - Info Providers - Configuration - Map Settlings	 Invert SSB side (CW) Invert SSB side (PHONE) 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 	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 Main color Main color 000 000 000 Decimal color 000	Offset 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

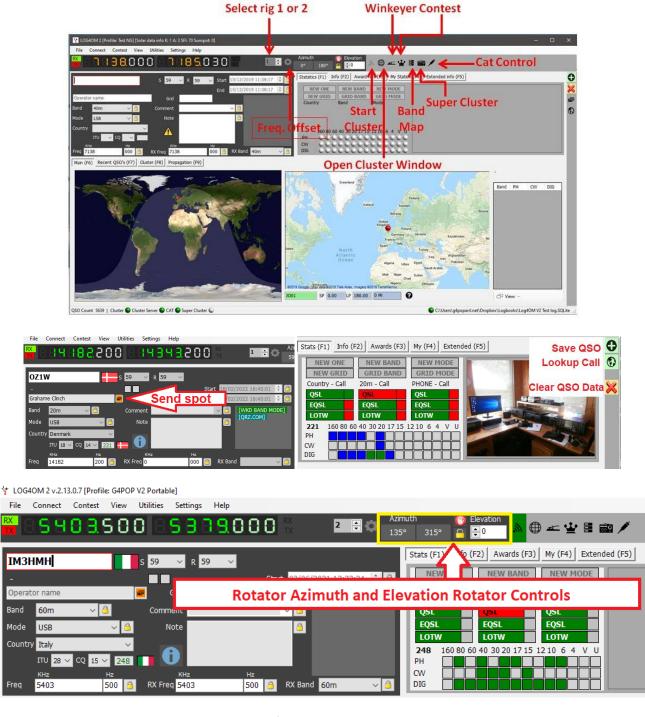
Select Icom IC7300 (Stable) from the Rig menu Check the box 'USE HAMLIB' Select the USB CI-V – Remote com port number in the 'DEVICE' menu Set 'BAUD RATE' to 19200 Click on 'INITIALISE' Click 'SAVE' Click 'Close' In the Configure menu click on Save Config

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.



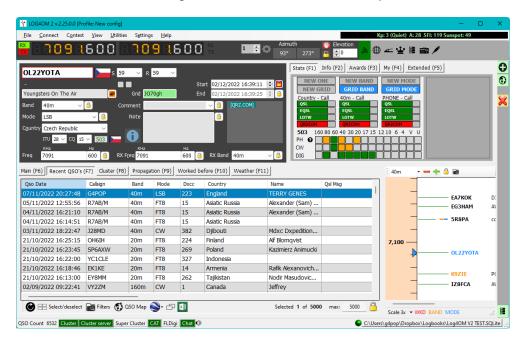
Rotator control when connected using PSTRotator for Azimuth, Elevation, parking and locking is available by using the controls in the screen shot above.

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	3 2	Background colour	A	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 ♥ ♥ 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: Check for updates report program version + country. Send statistics report program version + country + callsign Thanks for sharing detailed statistics Automatic Mies Info GoogleMaps
Award preferences Award preferences Ostrvare Configuration Custer Louster Alert Info Providers Configuration Map Settings Backup VOACAP Propagation Auto Start	QSO Attachment archive path GRID default row count Automatic backup on closure 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 000 🎒	RX Band <mark>80m ~</mark>	QSL Via	·
d	Freq	Name	Comment	Notes
		Calculation		
	5379	Grahame		
	5379 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 3772 000 🙆	RX	Freq 37	72	Hz 000 🔒	RX Band
lituation	n map (F6) QSO Archive (F7) Clus	ter (F8)			
Callsi		Revd	Mode	Band	Freq	Name
OZ1V	Edit table layout 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 Class Cnty Conty Contacted Op Contest Id Dxcc Cq Zone Itu Zone 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	□□□□□□□□ >

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	 Set QSO Start time when leaving callsign field External services delayed upload Retrieve operator name from previous QSO's 	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 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.

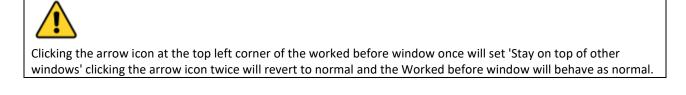
v.2.2	20.0.0 [Profile: Test NG]		×
	Contest View Utilities Settings H		Kp: 2 (Quiet) A: 5 SFI: 97 Sunspot: 103
888	185500 00838	Q:100 \\ 2005E	0° 180° o €0 → 0 ⊕ ≪ 🖢 🖩 📾 🗡
G4POP	→ S 59 ∨ R 59	×.	Stats (F1) Info (F2) Awards (F3) My (F4) Extended (F5)
- Terry Genes	Grid JO01jp	Start 18/02/2022 16:54:52 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 Country England	✓ <a>B 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 PH
KHz Freq 14182	Hz KHz 200 🎒 RX Freq 0	Hz 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	GI0HWO	40m	FT8	7075.633			John Crawford-Baker		Northern Ireland	Islandmagee, Country Antrim
05/05/2018 07:02:19	GI0HWO	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	GI0HWO	60m	SSB	5379	59+10	59+05	John		Northern Ireland	Islandmagee, Country Antrin
24/10/2017 18:55:00	GI0HWO	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)

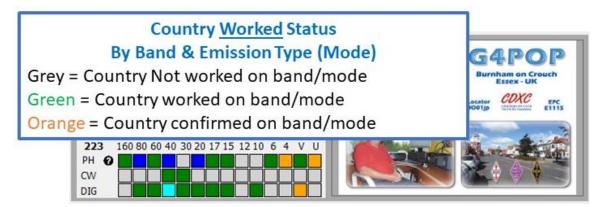
The lower part of the graphic above shows that:

- 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 Apply default set QSL default message Main UI Statistic view QSL EQSL EQSL EQSL EQSL EQSL EQSL EQSL E

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 74290 Talloires-Montmin 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 DTA@HB/AG-010	
ITU 28 🗸 CQ 14 🗸 287 📑 🕕	PO	TA@HB-0005 AP_WADA@WAP-081	
KHz Hz KHz Hz			
Freq 14182 200 🛅 RX Freq 0 00	D 📋 RX Band 🗸 🕒		

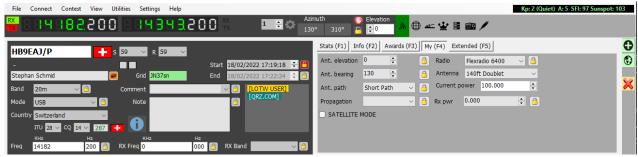
Grid locators and award references

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 W6/NS-200 7	Iorthern Sierra	W6/NS-191 V6/NS-192 W6/NS-193 W6/NS-194
Mode USB V A Notes	[LOTW USER] [EXCHANGES QSL] [NICK: ROBIN]	SOTA@W6/N	200	W6/NS-194 W6/NS-195 W6/NS-196 W6/NS-197
ГГU <mark>6 ~ CQ 5 ~ 291 🎬 🕕</mark> КН2 Н2 КН2 Н2	[QRZ.COM]			W6/NS-198 W6/NS-199 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 ♥ □ 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 CARPOR
Main (F6) Recent QSO's (F7) Cluster (F8) Propagation (F9) Worked before (F10) Weather (F11) Click to open 'Compact	Data Entry' window
Boreham msford Great Baddow Boreham Berenter Southin Ferense Southin Ferense Southin Ferense Southin Ferense Southin	14,300 VI6010TA TF/DK1VK HFII IWORQ3

								×
ІЖЗНМН	S 59 V R 59	✓	Statistics (F1) In	fo (F2) Awards	(F3) My (F4) Ext	ended (F5)		0
- DANIELE PISTOLLAT	O <u>G</u> rid JN65eo	<u>S</u> tart 07/01/2023 14:50:16 🐳 🤷 End 07/01/2023 14:50:16 🐳 🎱	NEW ONE NEW GRID Country - Call	NEW BAND	NEW MODE GRID MODE		Kalian Amateur Radio Station	×
Band 40m	Comment	[WKD BAND MODE] [LOTW USER] [EOSL USER]	QSL EQSL LOTW	40m - Call QSL EQSL LOTW	PHONE - Call QSL EQSL LOTW			
Country Italy	Q 15 V 248	[EXCHANGES QSL] [NICK: LELE] [QRZ.COM]	QRZCOM 248 160 80 6 PH Q	QRZCON 0 40 30 20 17 15	QRZCOM 1210 6 4 V U			
кнг <u>F</u> req 7110	Hz KHz 074 A RX Freq 7110	Hz 074 🎒 RX B <u>a</u> nd 40m 🗸 🤮	CW DIG			Dp. Daniele CQ Zone 15 ITU Zone 29 WW Locator JNGSED 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 clustercommands.txt clusterdefaultscript.txt	^	User edited resources bandlist_user.txt Irst_user.xml			Ô
r contest.csv ITU_IARU.csv Smodelst.csv 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
 Export all station calls in log
 Export when station callsign contains the call
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

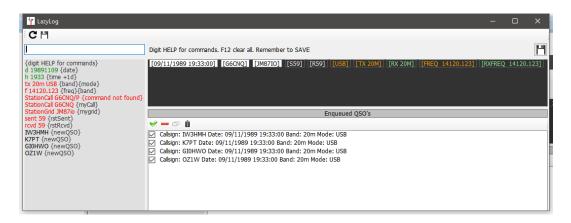
To facilitate rapid entry of QSO's from old paper logs or manually recorded field events Log4OM provides a special QSO entry method whereby the basic fixed data is retained with only call sign to be rapidly input.

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 D (DATE yyyyMMdd) H {TIME HIMmnss} +[MINUTES] {"AUTO"} -[MINUTES] ("AUTO"} +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"} RST	Enqueued QSO's	
SENT [RST SENT] RCVD [RST RECEIVED] TX COMMAND TX [BAND] TX [MODE] TX [BAND] [MODE] FREQ COMMAND F {TX FREQUENCY} RX (BAND] FREQ RX COMMAND 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 Band to the same value	tx 20m
	TX [MODE]	Set the current MODE	tx USB
	TX [BAND] [MODE]	Set the current BAND and MODE	tx 20m USB
FREQ COMMAND	F {TX FREQUENCY}	In kHz. If missing, removes the TX frequency. If set, this will also update TX BAND, RX frequency and RX band to the same value.	f 14120.10
RX COMMAND	RX [BAND]	Set the current RX band	rx 20m
FREQ RX COMMAND	FRX {RX FREQUENCY}	In kHz. If missing, removes the RX frequency. If set, this 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] [REFERENCE]	Set my station award reference(s). Multiple subsequent references are allowed.	myref IOTA EU-131
MY GRID	STATIONGRID [MY GRIDSQUARE]	Set the station gridsquare	stationGrid JN65eo
CONTACT 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 subsequent references are allowed. Contact references are CLEARED after successful QSO save	ref IOTA EU-131
RST	SENT [RST SENT]	Set the default RST SENT value	SENT 599
	RCVD [RST RECEIVED]	Set the default RST RECEIVED value	RCVD 599
CONTEST	CONTEST {CONTEST CODE}	Set the CONTEST ID. If blank, disable the contest mode	contest ARRL-10
DATE/TIME COMMANDS	D {DATE}	Set the QSO date (yyyyMMdd format)	d 20200110
	H {TIME}	Set the QSO time (HHmm or HHmmss). If time < actual log time adds +1 day	h 1933 H193321
	+[MINUTES] {"AUTO"}	Add [MINUTES] to the current date/time. AUTO parameter set automatic increase on each QSO if different timing is not set in the QSO COMMAND row	+5 5 +2 AUTO
	-[MINUTES] {"AUTO"}	Remove [MINUTES] from the current date/time. AUTO parameter set automatic increase on each QSO if different timing is not set in the QSO COMMAND row	-5 -6 AUTO
	+S[SECONDS] {"AUTO"}	Add [SECONDS] to the current date/time. AUTO parameter set automatic increase on each QSO if different timing is not set in the QSO COMMAND row	+S10 S10 S21 AUTO
	-[SECONDS] {"AUTO"}	Remove [SECONDS] from the current date/time. AUTO parameter set automatic increase on each QSO if different timing is not set in the QSO COMMAND row	-S10 -S30 AUTO
QSO COMMANDS	{DATE/TIME COMMAND} [CALLSIGN] #{GRIDSQUARE} {SENT [RST SENT]} {RCVD [RST RECEIVED]} {CS [CONTEST SENT]} {CR [CONTEST RECEIVED]} AMETER] {OPTIONAL PARAMETER}	At the carriage return the system will save the QSO into the temporary list of QSO's SENT command can be replaced by > RCVD command can be replaced by <	G4POP RCVD 599 +5s IW3HLI #JN65ER SENT599 RCVD555 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 ⁰
								Users record	3	
			ON AIR					NET USI	RS	
TIVE USERS	TIME MANAGER						Callsign	Name	Country	QTH
allsign i3AYZ i3VOT	Name JIM GEORGE	QTH Diss Derby	Date/Time on 19/04/2020 9:46:27 19/04/2020 9:47:22	Country England England	RST Sent 59 53	RST Rcvd 59 51	G8HQJ GI0HWO LA0HK 921W <	JOHN CRA	England Northern Ir Norway Denmark	Delabol Islandm AKSDAI 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 LSB	~ 🙆 ~	
when th	ey join the net -	This action record	ll sign) from the NET USER s their start (Joining) time	e and RST rep	oorts.		Sent 59 v Comments	Rcvd 59 🗸		
			; his call from the ON AIR 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



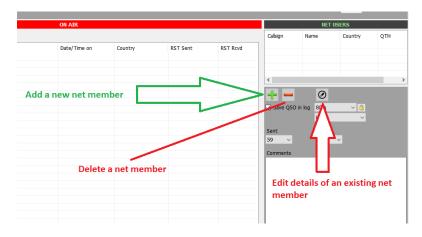
2. Click the check mark icon to add the new net or press enter (To abort the action press Esc or click the red cross X)

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 ~ 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 K7PT	Name STEVEN H	Country 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 K7PT	Name STEVEN H	Country United Stat.
	Taking since		Total elapsed			
				Save QSO in External look Default sent 59 Default comme	USB Default ro 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

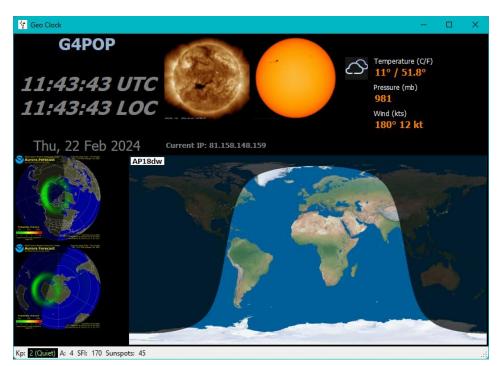
The user can select either Google Maps, Bing or Street Maps from the Settings/Program configuration/program settings menu as shown below.

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 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 QSO Attachment archive path GRID default row count Automatic backup on closure Ask before exit	GoogleMaps
Audio devices and voice keye CAT interface CW Keyer interface	Those fields are used by Log4OM team Log4OM Team user	n to manage awards. Normal users must ignore them
	Log4OM Team password	

World Clock and Map

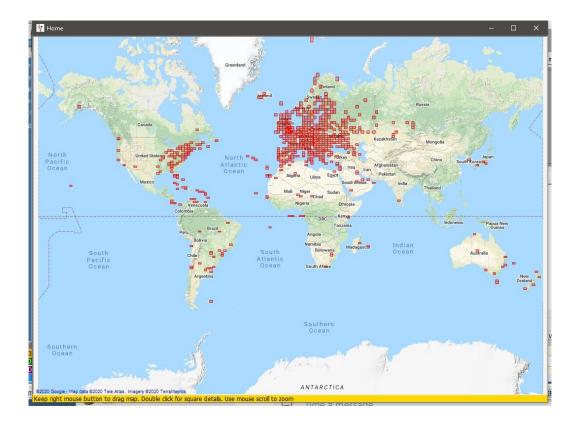
This floating world clock/map provides instant information about local weather, propogation, time and grey line, to access it use view/World Clock



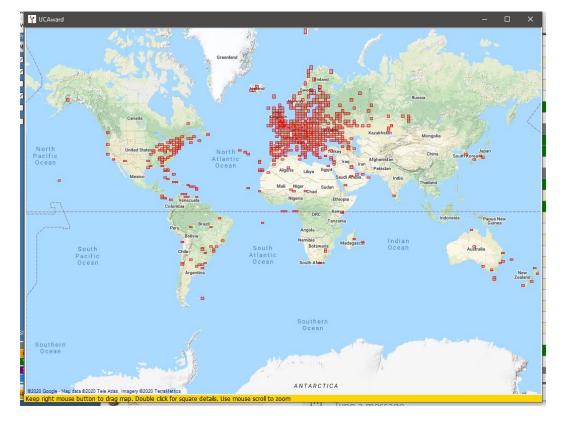
QSO Maps

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.

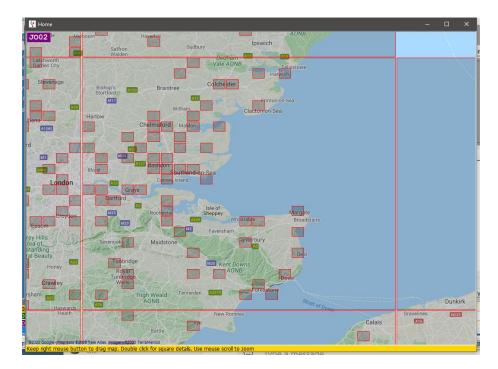
ile <u>C</u> onnect Contest	View Utilities	S <u>e</u> ttings <u>H</u> elp										
838600	00088	80605868	< K	1 🛟 🗘	Azimuth 0°		Elevation	.≫ ⊕	<u>≪</u> ¥	= 💼 🖊	۶	
ALLSIGN	S 59	✓ R 59 ✓ Start 30/	/06/2020 08	8:07:50 韋 🧯	Statist	tics (F1)	nfo (F2) Av	vard refs (I	F3) My St	ation (F4)	Extended info	(F5)
		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 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 in (F6) Recent QSO's (F7		ropagation (F9) Worked before	e (F10)			000		0000	5555 + 1	č 📖		
a 3760 000 in (F6) Recent QSO's (F7 iso Start Date	Callsign	3760 000 00 R ³ ropagation (F9) Worked before Country	e (F10) Rst	Rst Rcvd	Band	Freq	Mode	Nar ^		č <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) Rst 59	Rst Rcvd 59	Band 80m	0	LSB	Oah	3,780	č 		
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) Rst 59 53	Rst Rcvd 59 44	Band 80m 20m	0 14302	LSB SSB	Oah Jeff	3,780	č 		
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) Rst 59 53 55	Rst Rcvd 59 44 42	Band 80m 20m 20m	0 14302 14302	LSB SSB SSB	Oah Jeff 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) Rst 59 53 55 55 59	Rst Rcvd 59 44 42 59	Band 80m 20m 20m 20m	0 14302 14302 14302	LSB SSB SSB SSB	Oah Jeff Sam Sve	3,780 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) Rst 59 53 55 55 59 53	Rst Rcvd 59 44 42 59 33	Band 80m 20m 20m 20m 20m	0 14302 14302 14302 14302	LSB SSB SSB SSB SSB	Oah Jeff Sarr	3,780			
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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) Rst 59 53 55 55 59 53	Rst Rcvd 59 44 42 59 33	Band 80m 20m 20m 20m 20m	0 14302 14302 14302 14302	LSB SSB SSB SSB SSB	Oah Jeff Sam Sve	3,780 3,770			
a 3760 000 in (F6) Recent QSO's (F7	Cluster (F8) P Cluster (F8) P Callsign KH7X G4ELZ OH6KSX 9A5MX EA2DT IU1KGS 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 59 44 42 59 33 51 58	Band 80m 20m 20m	0 14302 14302 14302 14302 14302 14302	LSB SSB SSB SSB SSB SSB SSB	Oah Jeff Sarr Sve Man	3,780 3,770 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 ropagation (F9) Worked before Country Havai England Finland	FILON Rst 59 53 53 55 59 53 55 59 55 59 59 59 59 59 59	Rst Rcvd 59 44 42 59 33 51 58 58 59	Band 80m 20m 20m	0 14302 14302 14302 14302 14302 14302 14302 14302	LSB SSB SSB SSB SSB SSB SSB SSB	Oah Jeff Sarr Sve Man Ken Man	3,780 3,770 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 Custer (F8) P Calsign KH7X G4ELZ OH6KSX 9A5MX EA2DT JU1KGS G0FEX RWJF DL9MD1 CAMPIM	7760 000 R R ropagation (F9) Worked before Country Havai England Finland Country Russia Russia public of Germany	e (F10) Rst 59 53 59 53 55 59 59 59 59 59 59 59 59 59	Rst Rcvd 59 44 42 59 33 51 58 58 59 59 59	Band 80m 20m 20m 20m 20m 20m 20m 20m 20m 20m 40m	0 14302 14302 14302 14302 14302 14302 14302 14302 14247 7158 7158	LSB SSB SSB SSB SSB SSB SSB SSB SSB	Oah Jeff Sarr Sve Man Ken Man	3,780 3,770 3,760 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				



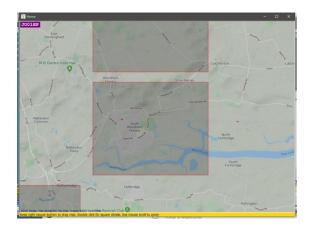
Scrolling the mouse wheel will zoom the map in and out and right click and drag will move the map.



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	 	_
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.

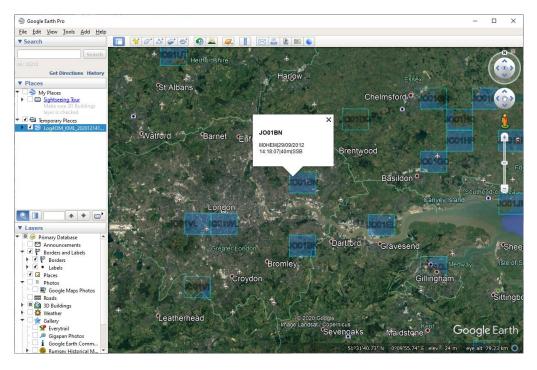
•	nfo 🛵 Export to ADIF 🚓 Exp Single field update Date/Time upd		s Direct SQL	.]					
CALLSIGN	QSO da	te range							
	From 14/1	2/2020							
	To 14/1	2/2020							
Callsign	Qso Date	Qso End Date	Band	Freq	Mode	Rst Sent	Rst Rcvd	Gridsquare	
WA3OGQ	17/12/2018 01:22:15		40m	7074.52	FT8	-10	-17	FM09	
KS4OT	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

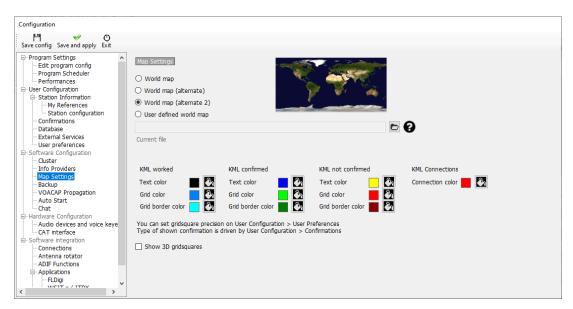
Save the fie to a convenient location and GE opens to display results

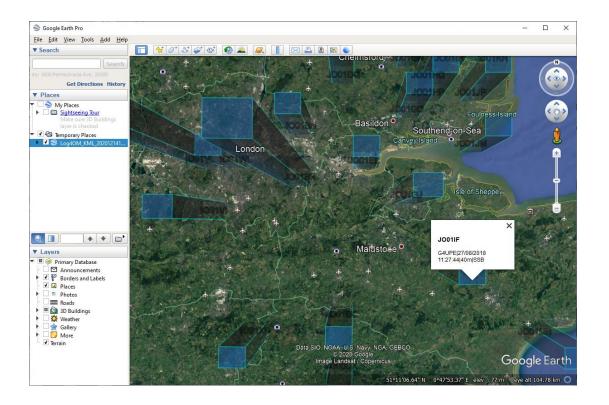


Clicking on a square displays the QSO's for that square

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 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 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	 Disabled 				
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. 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 Audio devices and voice keve							
CAT interface							
CW Kever interface							

In the examples above Log4OM checks

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

2nd 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.

3rd 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 Station configuration Local weather - Confirmations - Database - External Services - User preferences	Connections UDP UDP Proxy Remote Control UDP INBOUND Port Connection name 33333 TEST	Service type ADIF_MESSAGE V	÷	UDP OUTBOUND Port 0) 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 Σ 0:00.0022 Δ 0:00.0022 UDP outbound enqueued complete Σ 0:00.0024 Δ 0:00.0001 SYNC message sent to user interfaces Σ 0:00.0037 Δ 0:00.0012 BEGIN external QSO data enrichment Σ 0:00.0855 Δ 0:00.0037 END external QSO data enrichment Σ 0:00.7855 Δ 0:00.7820 Worked before complete Σ 0:00.7935 Δ 0:00.040 External image retrieved Σ 0:00.8930 Δ 0:00.0994 Name from previous QSO retrieval complete Σ 0:00.9120 Δ 0:00.0189 Available awards for call retrieved Σ 0:00.9222 Δ 0:00.0102 GRID SET Σ 0:00.9682 Δ 0:00.0460 Chat searched for callsign Σ 0:00.9773 Δ 0:00.0091 Statistics set Σ 0:01.0239 Δ 0:00.0466 Award references load complete Σ 0:01.0552 Δ 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:

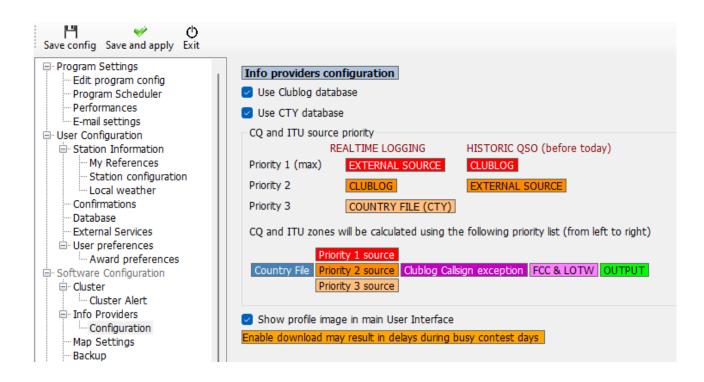
- 1. External Source (QRZ, Hamqth etc)
- 2. Clublog Exceptions file
- 3. CTY Fike

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 <	•
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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 source	Failsafe source					Web external source Primary source QRZ.COM
Database External Services	QRZ.COM	۲		V	G4POP	*****	\diamond	O HAMQTH
User preferences	HAMQTH	0	۲	V	G4POP	******	•	○ QRZCQ
CAT interface	QRZCQ	0	0		User	Password	0	
- Info Providers Map Settings	HAMCALL (online)	0	0		User	Password	0	
Auto Status Software integration - Connections - Anterna rotator - Anterna rotator - Anterna rotator	Failsafe sour Set NONE d	ce will be polle uring contests	d if primary so or when exp	erienc	doesn't return info. 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.

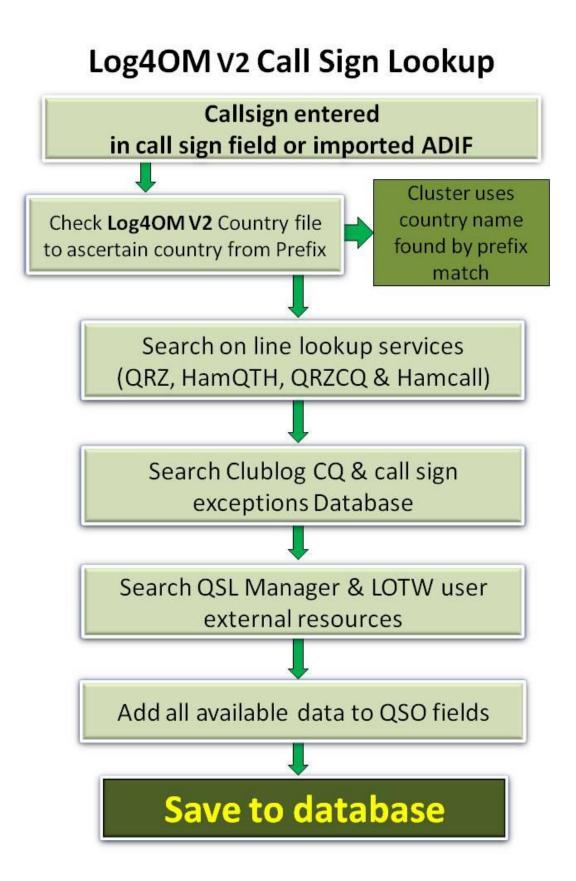
Source priorities.

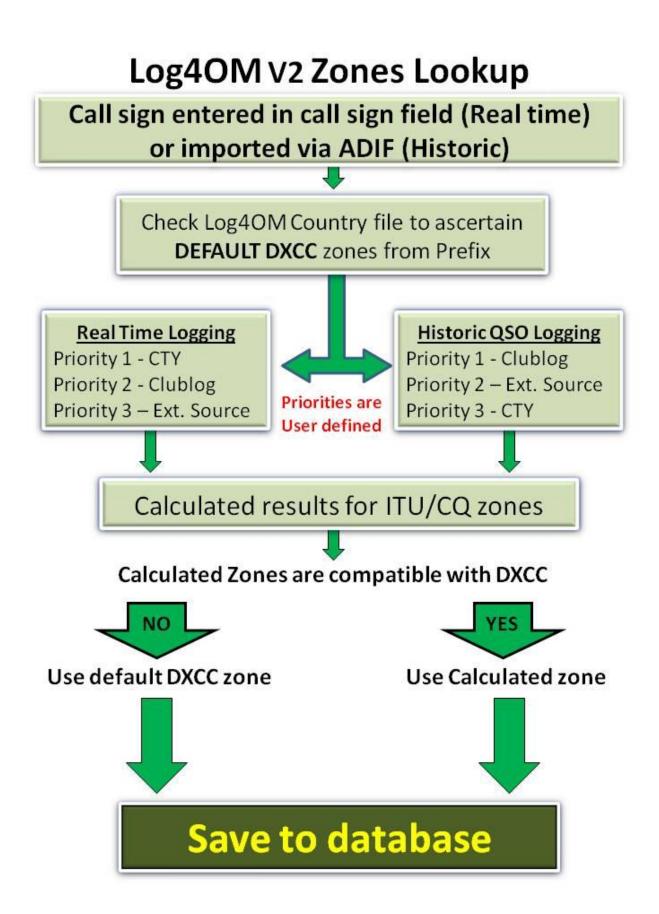
CQ and ITU zones present a difficult situation because due to either a station changing QTH or changes being made in zoning over the years the zones applicable to a call sign or country may alter according to when the QSO was made. Therefore, historic QSO's which already exist in the logbook or that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

Configuration ❤ 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





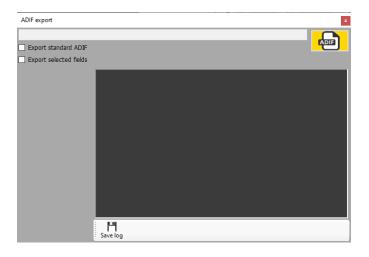
QSO Export

Bulk exporting

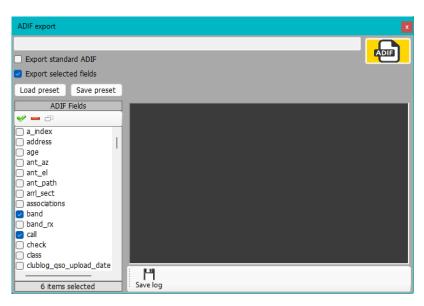
• To export the complete logbook, go to the 'File' menu and select 'Export ADIF'



• 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:

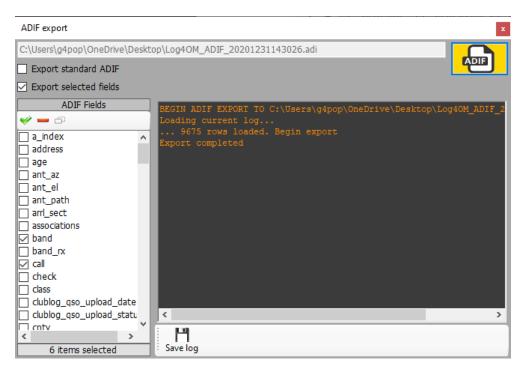
To save repetitive field selections for regular tasks the user can 'Save Preset' for later use and recalling that selection using the 'Load preset' buttons.

🙀 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
> 🗦 Dropbox			No items match your search.		
> 🕖 Music					
> 🚺 Videos					
> 🧧 Terry Genes	- I				
🗸 🛄 This PC	1				
> 📥 Acer (C:)					
> 📻 Data (D:)					
· · · · · · · · · · · · · · · · · · ·					_
File <u>n</u> ame: ADIF exp	ort preset.txt				~
Save as <u>t</u> ype: TXT files (*.txt)				~
 Hide Folders 				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 MSI Cancel sort Clear selection 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 Export to H		60m	Right	click a	ny colu	mn title	to view menu	1
4X4DK 4Z5ML	Export to H		60m 17m 20m	Right	click a	ny colu	mn title	to view menu	
4X4DK 4Z5ML 4Z5NN	Export to H	ITML	17m						
4X4DK 4Z5ML 4Z5NN 5B/G4RUW	Export to H	ITML cted to ADIF	17m 20m	PORDI	14072.009	599	333	Lak	
4X4DK 4Z5ML 4Z5NN 5B/G4RUW 5B4AIF	Export to H Export sele	4TML cted to ADIF 017 09:53:56 1017 18:27:00	17m 20m 20m 60m	USB JT65	14240	595 59+10	58	ROGER DANIEL	
4X4DK 4Z5ML 4Z5NN 5B/G4RUW 5B4AIF	Export to H Export sele	4TML cted to ADIF 017 09:53:56 1017 18:27:00	17m 20m 20m 60m	USB JT65	14072.005 14240 5358.392	59+10 -11	599 58 -14	ROGER DANIEL Norman"s Club Station	
4X4DK 4Z5ML 4Z5NN 5B/G4RUW 5B4AIF	Export to H Export sele	ITML cted to ADIF 017 09:53:56	17m 20m 20m 60m	USB JT65	14072.039 14240 5358.392 14075.604	599 59+10 -11 +01	58 58 -14 -16	ROGER DANIEL Norman''s Club Station 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 S	ADIF export		
1	Export standard ADIF		
	Export selected fields		
n	ADIF Fields		-
L S Q E 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	
	1				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 7182 000	<u> </u>	Sent				
RX Freq	кнz нz 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 OK1VM 26/08/2019 09:30: 40m FT8 7076.049 00 <	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: 27/08/2019 07:14: 26/08/2019 09:49: 26/08/2019 09:4 26/08/2019 09:30:0	27/08/2019 07:17: 27/08/2019 07:14: 26/08/2019 09:49: 26/08/2019 09:41 26/08/2019 09:30: 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 Standard fields References	My References Confirmations Associations V EQUAL V 291	
e - 5	Query parameters	Use Params Indent level
og.dxcc = 291		0 🔹 AND (default) OR
		Modes 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 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:

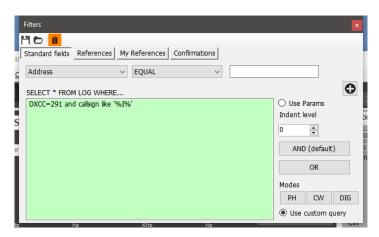
If dxcc = 291 and mode is CW or USB. If mode is not CW or USB, show data if CQZone is 3

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 	
Exclude Q	50 containing t	his award:	rd GM/CS-013	
	Load ref	erences	GM/CS-014 ' GM/CS-015 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 ERU-0166 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 🗁 🧰 Stan rd fields References My References Confirmations	3
S confirmation LOTW - 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) 7N4TWL-7 (8000)	Cluster Name				
940DYC (8000)	Host	Port	0		*
AESE (23) AI9T (7300)	Force Callsign	SSID			
AI9T-2 (7373) BG2RVL-9 (7300)	Password				
BG8FFE (7373)	Enable connection Keep Alive				
CE4UYP-5 (9000) CS5SEL-5 (41112)	Initialization commands				
CX2SA-6 (9000)					
Chick Constant (Constant)					
ON0AN (8000) [PRI] gb7mbc.spoo.org:8000	// : Comment <delay> : adds 1 sec delay</delay>				
EI7MRE (7300) 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) SM6HOC-6 (7300)	Cluster Name	SOTA			
SM6YOU-2 (8000) SM7GVF-6 (8000)	Host	elgur.crabdance.com	Port	7300	*
U SOTA (7300) SP7YDD-12 (9000)	Force Callsign	Blank for default	SSID		\sim
SR1DXZ (9000) SR4DXC (7300)	Password	Blank for none Enable conne	ction Keep Aliv	/e	
SR9ZAA-12 (9000)	Initialization commands				
SV1IW-9 (73) SV2CUI-8 (7300) SV2HRT-1 (7300)	// use <callsign> <callsign> //<password> //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 <delay> : adds 1 sec <callsign> : sends y <password> : sends</password></callsign></delay>	delay our Station Callsign (or the forced one) 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 1251 ve7cc.net:23: To AL 1251 44.144.11.254:8000: 1251 44.144.11.254:8000 1251 ag07dk.ath.cz:7300: 1251 gb7mbc.spc.org:8000 1251 gb7mbc.spc.org:8000; 1251 44.144.11.254:8000;	L de F6EXV <1251Z> : To ALL de F6EXV: AM7 DX de EA4CT: 141 DX de EA4CT: 141 DX de EA4CT: 1 DX de SV1AMH: 181			DE URE IO DE URE	1251Z IN80 1251Z IN80 1251Z 1251Z KM18 1251Z KM18	*
Clear Save log						>
Commands Spot simulation						
Send Spot CALLSIGN	KHz Hz 0 000 🙆	SPOT informations	~	Send to all servers	Set perso Moon	info
Send ANNOUNCE tex	t	Br	oadcast	n: 1000 max: 1000	Sun i	nto

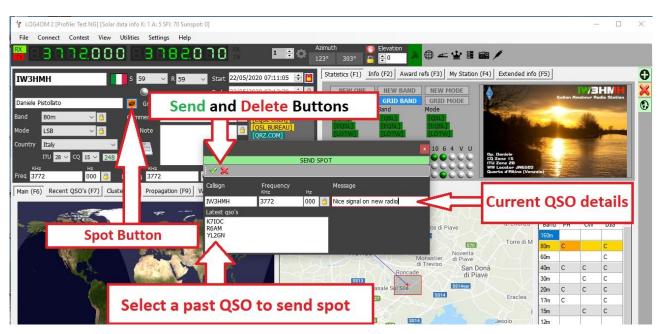
Sending cluster commands

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 SPOTTER CALL	HZ 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			
 User Configuration Station Information 	Server auto-start		Country not worked	COUNTRY NOT WORKED	8	B 1
My References 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 - External Services	Show stable clusters		Station not worked	STATION NOT WORKED		2
	 Show experimental clusters 		Station worked	STATION WORKED		2
- CAT interface	O Show inactive clusters		Station worked same band	WORKED SAME BAND		2
Cluster Info Providers	Cluster server port	23	Station worked same mode	WORKED SAME MODE		2
Map Settings Backup	Cluster maximum age (min)	90	Station worked band mode	WORKED SAME BAND + MODE		2
- VOACAP Propagation - 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 Antenna rotator						
ADIF Functions	Max spots in band map	50 🜩				
	Supercluster max age (min)	90 🗧 🚱	Award highlight	HIGHLIGHT	3	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 File Connect Contest Vie		Settings Help	anspor of			
1014000) - 1 I	35,160	143°	ation in the second sec	⊕	-
IQ1LY	S 59	✓ R 59	 Start 26/08/2019 12:07:05 End 26/08/2019 12:07:50 	Statistics (F1)	F2) Award re	B) My Station (F4 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 TWO
Country Italy	× 📁			become and	Contraction of the local distance of the loc	4 V U
TTU 28 ℃ CQ 15 ℃ 24	18 🔲 👘	•	Add Super	Cluster result	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 Station configuration	Cluster						
Confirmations	Cluster auto-start			Cluster highlight colors			
Database 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	e n
Cluster Alert	 Show stable clusters 			Station not worked	STATION NOT WORKED	2	a
Info Providers Configuration	 Show experimental clusters 			Station worked	STATION WORKED	2	4
Map Settings Backup	 Show inactive clusters 			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 Chat	Cluster max age (min)	120	÷	Station worked band mode	WORKED SAME BAND + MODE	2	a
Hardware Configuration Audio devices and voice keve	Maximum cluster items	1000	• 🔒	Station wkd same mode type	WORKED SAME MODE TYPE	2	a
- CAT interface CW Kever interface	Band map max age (min)	25	ŧ	Station wkd band mod type	WKD SAME BAND + MODE TYPE	ð	e 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 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 Set the default confirmations for each award according to y Type 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 4 4 4 4 4 4 4 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

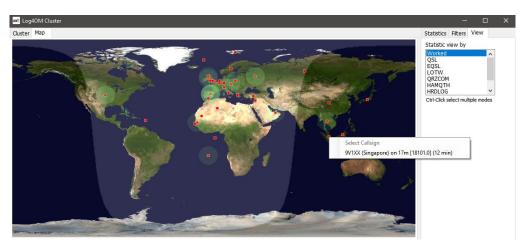
The cluster filters provide a method of tailoring the spots to be displayed by band, mode, worked and QSL confirmation status - Use Ctrl/Click to select or deselect bands or statistics confirmation types.

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.

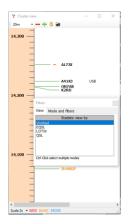
Below is an example of an IOTA reference being 'Read' from the notes field automatically.

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 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 EU-095	
Country F	rance	~						References	IOTA@EU-095	-	EU-105 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	_	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

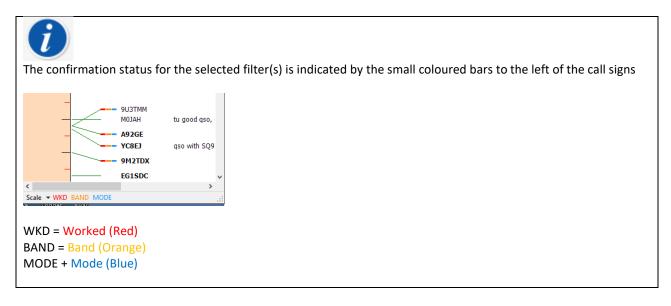
Cluster band map can be accessed by the Connect/Cluster Band View menu and multiple Band map can be opened for individual bands.

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

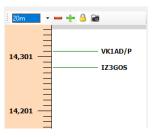
Band map Bands

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.



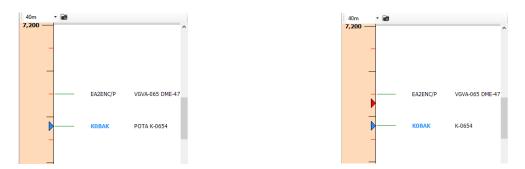
Band map Lock.

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 TX	1 🛟 {	Azimuth 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		2	<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	
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untry Canada		~					QRZC	ом 🛛 🔍	RZCOM	QRZCOM			San Alertan			
TTU 2 🗸	- co 5	1	8		_		1 PH 6	160 80 60 40	30 20 17 15 :	121064			-	0- 14 B		
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eq 7091 in (F6) Recen			req 70	91 600 🧧	RX B <u>a</u> nd efore (F10)								. 40m		- + G	
n (F6) Recen luster Map	nt QSO's (Fi	600 🤷 RX F 7) Cluster (F8)	req 70 Prop	91 600 agation (F9) Worked b	-)		Statistics		leam Vi	ew	. 40m	-		
n (F6) Recen luster Map Spot Source	nt QSO's (Fi	600 🙆 RX F 7) Cluster (F8) Callsign	Prop Flag	91 600 G agation (F9) Worked b Country	efore (F10) Band	Weather (F11) Emission Type	Spot Mode	Statistics		leam Vi	ew	. 40m	-	— + 3 छ ЕА7КОК	
n (F6) Recen luster Map Spot Source Cluster	t QSO's (F7 Time 1641Z	600 A RX F 7) Cluster (F8) Callsign IZOPAP	Prop Flag	91 600 G agation (F9) Worked b Country Italy	efore (F10) Band 80m	Weather (F11 Frequency 3676.0) Emission Type PHONE	Spot Mod	1 - Canad	da			: 40m	-		
q 7091 h (F6) Recen uster Map Spot Source Suster Cluster	Time 1641Z 1641Z	600 A RX F 7) Cluster (F8) Callsign IZOPAP VU2SRT	req 70 Prop Flag	91 600 agation (F9) Worked b Country Italy India	efore (F10) Band 80m 40m	Weather (F11 Frequency 3676.0 7008.0) Emission Type PHONE CW	Spot Mode	- '	da	cw	DIG	i 40m	-	— + 3 छ ЕА7КОК	A
q 7091 h (F6) Recen uster Map Spot Source Juster Juster	Time 1641Z 1641Z 1640Z	600 A RX F Calsign IZOPAP VU2SRT EA7KOK	req 70 Prop Flag	91 600 agation (F9) Worked b Country Italy India Spain	efore (F10) Band 80m 40m 40m	Weather (F11 Frequency 3676.0 7008.0 7135.0	Emission Type PHONE CW PHONE	Spot Mod	1 - Canae Band	da PH	cw		. 40m	-	— + В ≥ ЕА7КОК ЕG3HAM	A
q 7091 (F6) Recen uster Map Spot Source luster luster luster luster luster	Time 16412 16412 16402 16402	600 AX F 7) Cluster (F8) Callsign IZOPAP VU2SRT EA7KOK R80URAN	Flag	91 600 agation (F9) Worked b Country Italy India Spain European Russa	efore (F10) Band 80m 40m 40m 80m	Weather (F11 Frequency 3676.0 7008.0 7135.0 3515.0	Emission Type PHONE CW PHONE CW	Spot Mod	1 - Canar Band 80m	da PH C	cw	DIG C			— + В ≥ ЕА7КОК ЕG3HAM	59 A\ CC
q 7091 a (F6) Recen uster Map Spot Source luster luster luster luster luster luster luster	Time 16412 16412 16402 16402 16392	600 AX F 7) Cluster (FB) Callsign IZOPAP VU2SRT EA7KOK R80URAN EG3PCD	Flag	91 600 a agaton (F9) Worked b Country Italy India Spain European Russia 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 PHONE CW PHONE CW PHONE	Spot Mod	1 - Canad Band 80m 60m	da PH C C C C	cw	DIG C	40m		— +	A۱
q 7091 n (F6) Recen uster Map Spot Source duster duster duster duster duster duster	Time 16412 16412 16402 16402 16392 16382	600 AX F Cluster (F8) Callsign IZOPAP VU2SRT EA7KOK R80URAN EG3PCD VY2FU	Flag	91 600 a agaton (P9) Worked b Country Italy India Spain 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 PHONE CW PHONE CW PHONE PHONE PHONE		1 - Canad Band 80m 60m 40m	da PH C C C	cw w	DIG C		· 	— + В ≥ ЕА7КОК ЕG3HAM	A
q 7091 h (F6) Recen uster Map Spot Source duster duster duster duster duster duster duster duster duster	Time 16412 16412 16402 16402 16402 16392 16382 16382	Calsign Calsign ZOPAP VU2SRT EA7KOK R80URAN EG3PCD VY2FU R3RZ R3RZ	Flag	91 600 aagaton (F9) Worked b Country Itały India Spain European Russa Spain 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 PHONE CW PHONE CW PHONE PHONE PHONE PHONE	Spot Mod	1 - Canar Band 80m 60m 40m 30m	da PH C C C	cw w c	DIG C C		· 	еаткок Ебзнам Базнам Базнам ОL22Y0TA	A
aq 7091 n (F6) Recen luster Map Spot Source Cluster Cluster Cluster Cluster Cluster Cluster	Time 16412 16412 16402 16402 16402 16392 16382 16382 16372	Calsign ZOPAP VU2SRT EA7KOK R80URAN EG3PCD VY2EU R3RZ SQ95PRK	Flag	91 600 aagation (F9) Worked b Country Italy Inda Spain European Russia Spain European Russia 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 PHONE CW PHONE CW PHONE PHONE PHONE PHONE	SSB	1 - Canad Band 80m 60m 40m 30m 20m	da PH C C C	cw w c	DIG C C C			EA7KOK EG3HAM SRBPA OL22YOTA W9AFB	A1 CC
eq 7091	Time 16412 16412 16402 16402 16402 16392 16382 16382	Calsign Calsign ZOPAP VU2SRT EA7KOK R80URAN EG3PCD VY2FU R3RZ R3RZ	Flag	91 600 aagation (F9) Worked b Country Italy Inda Spain European Russa Spain European Russa 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 PHONE CW PHONE CW PHONE PHONE PHONE PHONE		1 - Canar Band 80m 60m 40m 30m 20m 17m	PH C C C C C W	cw w c	DIG C C C			еаткок Ебзнам Базнам Базнам 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 Save config Save and apply Exit			
Program Settings Program Scheduler Station configuration Software Schware S	Cluster Alert Enable alert sound Sound 1 Sound 2 Sound 3 Sound 4 Sound 5 Sound 6 Sound 6 Sound 7 Sound 8	Q)	☐ Enable alert e-mail E-mail destination address 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 End 11/01/2020 17:2		Cluster alerts -	×
Operator name		Grid			[17:24:43: OZ1JRL (DENMARK) 10M DIGITAL [NEW ONE ON BAND/MODE]] [17:27:15: GW45KA (WALES) 10M DIGITAL [NEW ONE ON BAND/MODE]]	1
Band <mark>30m</mark>	~ 🔒	Comment	✓ ^(a)	Ċ		
Mode FT8	~ <u></u>	Note	<u></u>		a de la companya de la	
Country	~			Ц		
TU V	cq 🗸				u	
Freq 0	Hz 000	RX Freq 0	Hz 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 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 Confirmations	O Sound 4	
Database	O Sound 5	
 External Services User preferences 	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 [OFF] 6M ALERT [OFF] NEW BAND [OFF] WWFF 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. Cluster 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 ☑ Spratly Is. ☑ Sri Lanka	
		Sudan Sumatra [deleted] Suriname	
	0 items selected		<u> </u>
	U Items selected Use of wildcard allowed.	1 items selected Continent (no selection = ALL)	_
	eg. IW3*, */P If empty, no filters will be applied on callsign	AF AN	^
		AS EU NA	~
Alerts will be applied to new inc	oming spots when you close this window		

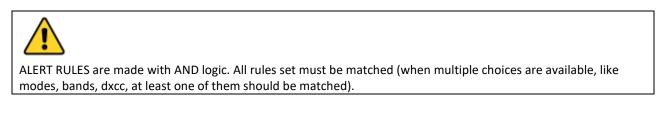
• If the DXCC entity is required on specific bands or modes select the band/mode in the Band/mode tab. This example will alert for every occasion a spot for Spratly

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 □ 20m	
	17m	DIGITALVOICE
e	□ 15m □ 12m	DOMINO DOMINOF
2	10m	1 items selected
		Emission type (no selection = ALL)
		CW DIGITAL 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: 1318 www.gb7mbc.net:8000:	DX de PA2V:	14199.0 W 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 398	Hz 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 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 Gmail has specific security measures to prevent abuse from "unauthorized" or unknown mail clients (Log4OM will be probably marked as "unknown mail client"). If you experience troubles please consider enabling "less secure apps" there https://myaccount.google.com/lesssecureapps or use another SMTP server. 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			
 Program Settings Edit program Config Performances E-mail settings User Configuration Sound 1 E-mail destination address Sound 2 Sound 3 Sound 3 Sound 4 Sound 5 Sound 5 Sound 6 User Configuration Sound 7 Solund 7 Sound 8 Sound 8 				
→ 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 IOTA AND SOTA	Definition Call/Dxcc Band/Mode Origin Awards By stats			
[OFF] OZ1W	Rule name NEW BAND			
OFF] WWFF 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.

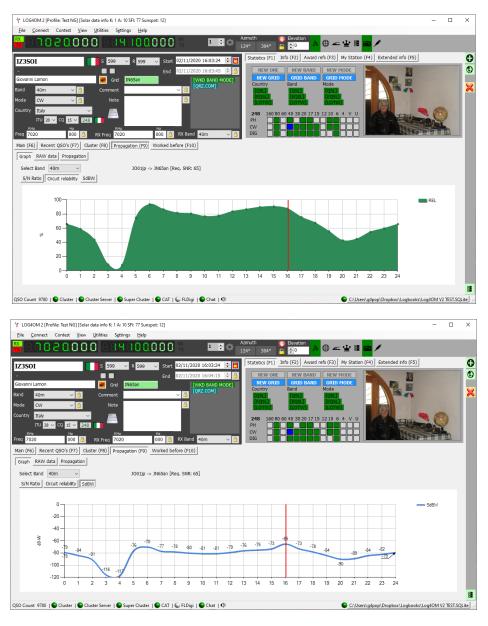


A separate window for propagation display is available from the view menu.

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'

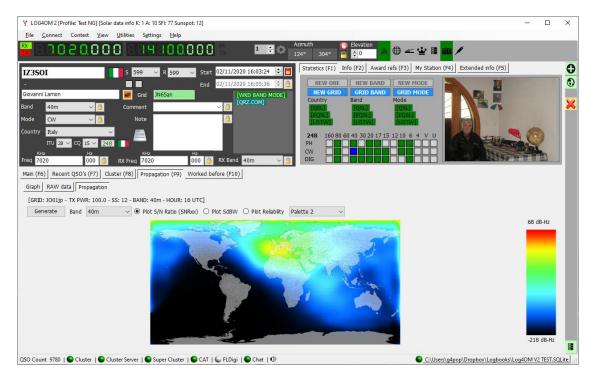
4 LOG4OM 2 v.2.13.0.7 [Profile: G4POP V2 Portable]	×
File Connect Contest View Utilities Settings Help	Kp: 1 (Quiet) A: 3 SFI: 75 Sunspot: 20
🕌 2 2 2 4 0 4 5 2 0 0 2 2 4 5 4 5 5 0 0 🗄 🛛 🕹 🕹 🕹 🕹 👘 🖉 🗮 📽 🖌	·
IW3HMH S 599 v R 599 v Start 02/06/2021 13:53:23 0 Danele Patolato God 3/865e0 End 02/06/2021 13:53:23 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 Save log 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	×
D +	Ó
Memory Nets Wets Som Nets [Old Timers net] 3,772.00 KHz [Old Timers net] 3,780.00 KHz QRP Frequencies [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 ➡ ♥ ♥ 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 From Radio (Microphone) To Radio (Speaker) Recording Recording device [FrontMic (Realtek High Du Listening device [Speakers (C-Media USB A	File 1 File 2 File 3 File 4 File 5	CQ CQ CQ G4POP Agan QR2 QR2 de G4POP QR2 QR2 de G4POP CR2 DX B84VED	Man UI and Contest hotkeys. Press ESC to stop C (TRL+F1 C (TRL+F2 C (TRL+F3 C (TRL+F3 C (TRL+F5 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	

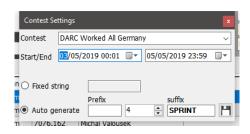
- Messages can be aborted during sending by pressing the keyboard key 'Esc'
- Messages can be sent either when the main UI is active, or the contest window is open

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 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 clusterknownwords.txt				Î
contest.csv				
modelist.csv				
NonStandardCallsign.txt				
PODXS Great Pumpkin Sprint;070-160M-SPRINT				
PODXS Three Day Weekend;070-3-DAY PODXS 31 Flavors;070-31-FLAVORS				
PODXS 40m Firecracker Sprint;070-40M-SPRINT PODXS 80m Jay Hudak Memorial Sprint;070-80M-SPRINT				
PODXS PSKFest;070-PSKFEST				
PODXS St. Patricks Day;070-ST-PATS-DAY PODXS Valentine Sprint;070-VALENTINE-SPRINT				
Ten-Meter RTTY Contest (2011 onwards);10-RTTY Open Season Ten Meter OSO Party:1010-OPEN-SEASON				
7th-Area QSO Party;7QP				
Alabama QSO Party;AL-QSO-PARTY JARL All Asian DX Contest (CW);ALL-ASIAN-DX-CW				
JARL All Asian DX Contest (PHONE);ALL-ASIAN-DX-PHONE 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.

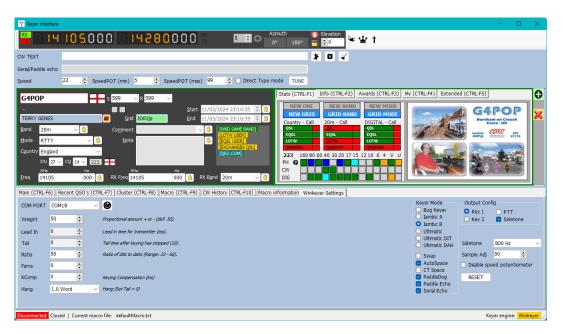
Alternatively use a Winkeyer port emulation software like that provided by FlexRadio and SunSDR TCI, if using a Winkeyer Port emulator please consult the relevant user guide.

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.

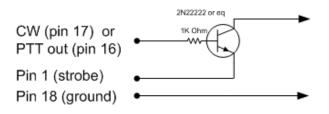


Com Port Keying Instructions

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	✓ ⁶	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 Ф	
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 Key PIN 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.

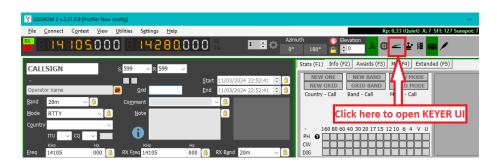
TCI CW implementation

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

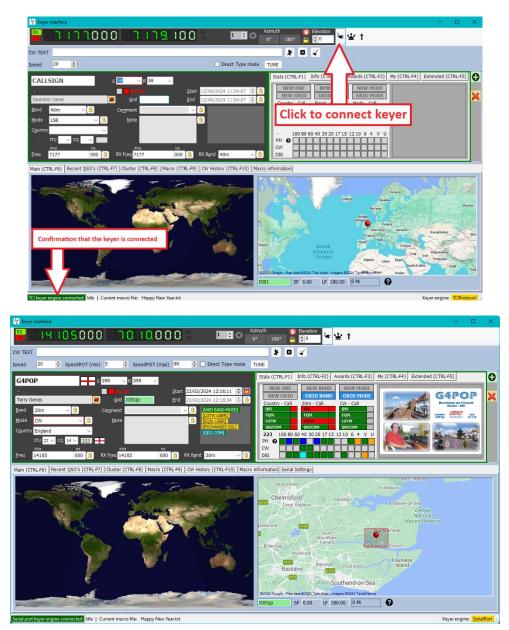
In the Settings/program config/CW Keyer interface menu, select 'TCI Protocol' as the CW keyer – Click 'Save and apply'

Configuration			
Save config Save and apply			
My References Station configuration 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)



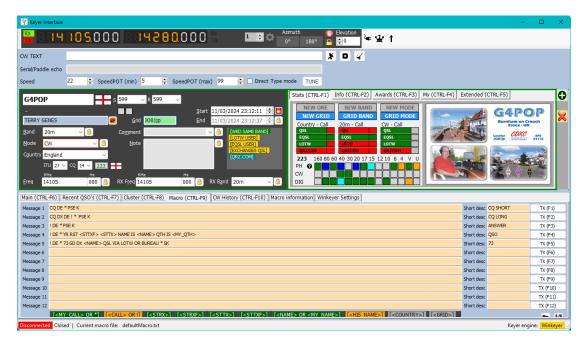
The connection details will be highlighted green at the bottom left corner of the keyer window.

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

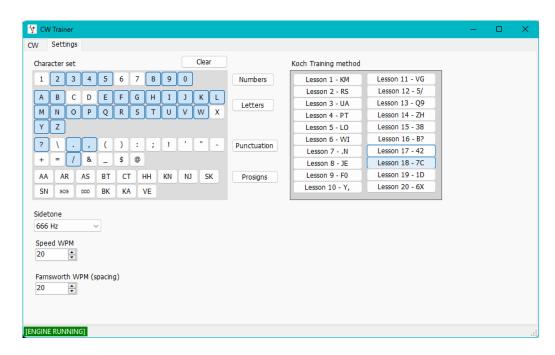
Main (CTRL-F6) Recen	nt QSO's (CTRL-F7) Cluster (CTRL-F8) Macro (CTRL-F9) CW History (CTRL-F10) Macro information Serial Settings
<my_call> or *</my_call>	My callsign
<call> or !</call>	Counterpart callsign (from keyer screen)
<strx></strx>	RST received (from keyer form) with 9 replaced by N
<sttx></sttx>	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>> 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 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.

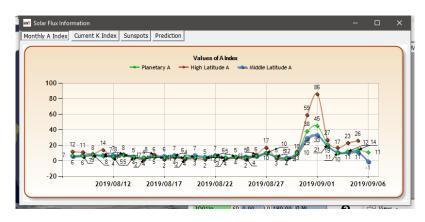
🖞 CW Trainer	- (×
CW Settings			
Generate random letters Generate random calls	_		
Words count 5 Characters / prosigns Press ESC to stop TX		S	
DK7OB BI4JUS UN7JDB GW1PJP JI1CAZ		theck esults	
Type answer without spacing. Set space to replace missed characters.	🗌 Sig	inal fad	ing
	White	1	level
[ENGINE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

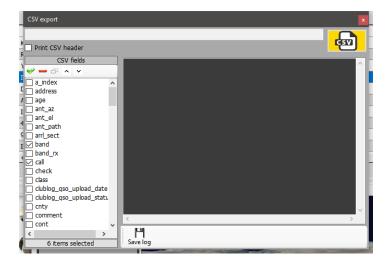
Export to ADIF

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

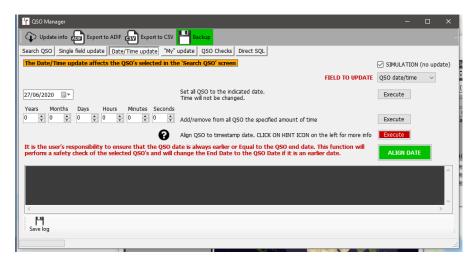
Select the field for update and enter a value, then click the 'Update' button

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 England Central England 4 Bardon Hill 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	ECUTE		
IW3HMH125/06/2020 11: OSO Saved Operation completed Save log	18:02 10m FT8 references	updated				>	< >

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 if APPLY DEFAULT option is	nd bearing data on selected QS f QSO gridsquare is available selected, distance is calcula	80's ited to the COUNTRY CENTER if QSO grids with ZERO distance set will be updated	equare is missing	
<				> ~
Save log				

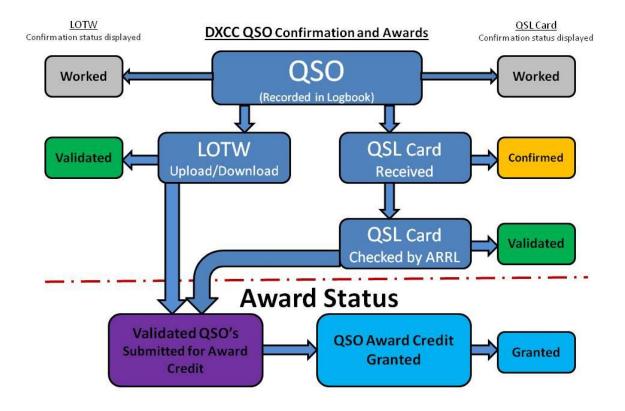
Editing a QSO

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 3535	Hz 000 🔒		Sent						
RX Freq	кнz 3535	Hz 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 X 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 QSL QSL default Worked QSL QSCOM UQZCOM UQZCOM 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	 an outgoing QSL card has been sent the QSO has been uploaded to, and accepted by, the online service
N	no	 do not send an outgoing QSL card do not upload the QSO to the online service The outgoing confirmation has not been sent
R	requested	 the contacted station has requested a QSL card the contacted station has requested the QSO be uploaded to the online service
Q	queued	 an outgoing QSL card has been selected to be sent a QSO has been selected to be uploaded to the online service
I	ignore or invalid	

Confirmation Received status

Status	Meaning	Description
Y	yes (confirmed)	 an incoming QSL card has been received the QSO has been confirmed by the online service
N	no	 an incoming QSL card has not been received the QSO has not been confirmed by the online service
R	requested	 the logging station has requested a QSL card the logging station has requested the QSO be uploaded to the online service
1	ignore or 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 Program Settings - Eck program config - Program Settings - Program Settings - Program Settings - Program Settings - Program Settings - Setting Configuration - Mark References - Setting Configuration - Configuration - Database - Settings Configuration - Audio devices and voice keye - Configuration	User Password TQSL exe path Temporary path Station ID TQSL Private pass My call (opt) Send My Station u Require TQSL log 10 SL Interactive r	node that all provided QSO will be correctly uploaded to LoTW w	SENT status is: NO REQUESTED	be upbaded when This should match with default LOTW SENT STATUS set in Win not be upbaded 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	\$	•					
	/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 20/04/2020 14:49:58	Band 20m	Mode CW	Confirmation QSL	Sent No	Received No	
Callsign AN100L M05BZ	Qso Date 20/04/2020 14:49:58 14/02/2020 08:51:38	Band 20m 80m	Mode CW LSB	Confirmation QSL QSL	Sent No No	Received No No	
Callsign AN100L M0SBZ DA2TE	Qso Date 20/04/2020 14:49:58 14/02/2020 08:51:38 11/02/2020 22:55:30	Band 20m 80m 40m	Mode CW LSB FT8	Confirmation QSL QSL QSL	Sent No No	Received No No No	
Callsign AN100L M05BZ 9A2TE 54MWJ	Qso Date 20/04/2020 14:49:58 14/02/2020 08:51:38 11/02/2020 08:50:37	Band 20m 80m 40m 80m	Mode CW LSB FT8 LSB	Confirmation QSL QSL QSL QSL	Sent No No No No	Received No No No No	
Callsign Callsign AN100L M0SBZ DA2TE	Qso Date 20/04/2020 14:49:58 14/02/2020 08:51:38 11/02/2020 22:55:30	Band 20m 80m 40m	Mode CW LSB FT8	Confirmation QSL QSL QSL	Sent No No	Received No No 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

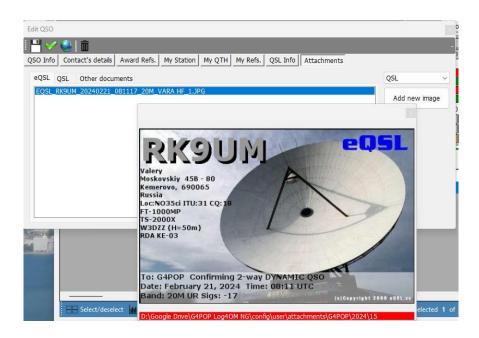
w/t Download confirmations		– 🗆 X
Confirmation type: EQSL		
 Date range 	Last download	
QSO from 01/01/1900 ~	Received since 2/09/2019 V My Callsign (opt)	
QSO to 04/09/2019 ~	Download cards	
15:57:26: Sending ADIF ger		
15:57:27: Parsing ADIF fil		29357.adi
15:57:30: EQSL UPDATING ST 15:57:32: EQSL 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		 Last downloa 	d	 Retrieve electronic confirmations Retrieve "Checked" Paper QSL's 	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 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 lefined v 04/09/2019 v	Rcvd No Via Undefin Date 04/0 Range	ned ~	Sent No Via Undefined 04/09/2019 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 QSL	No No	No No	No No		OZ1W OZ1W	29/05/2019 08:27:28 27/05/2019 07:19:41	80m 40m	LSB
QSL								
QSL QSL	No	No	No		OZ1W	27/05/2019 07:19:41	40m	LSB
QSL QSL QSL	No No	No No	No No		OZ1W OZ1W	27/05/2019 07:19:41 26/05/2019 06:59:21	40m 40m	LSB LSB
QSL QSL QSL QSL	No No No	No No No	No No No		OZ1W OZ1W OZ1W	27/05/2019 07:19:41 26/05/2019 06:59:21 01/04/2019 07:20:56	40m 40m 60m	LSB LSB USB
QSL QSL QSL QSL QSL	No No No No	No No No No	No No No No		0Z1W 0Z1W 0Z1W 0Z1W	27/05/2019 07:19:41 26/05/2019 06:59:21 01/04/2019 07:20:56 20/03/2019 07:57:29	40m 40m 60m 60m	LSB LSB USB USB
QSL QSL QSL QSL QSL QSL	No No No No No	NO NO NO NO NO	No No No No		0Z1W 0Z1W 0Z1W 0Z1W 0Z1W	27/05/2019 07:19:41 26/05/2019 06:59:21 01/04/2019 07:20:56 20/03/2019 07:57:29 26/02/2019 09:03:08	40m 40m 60m 60m 60m	LSB LSB USB USB USB
QSL QSL QSL QSL QSL QSL QSL	No No No No No No	No No No No No No	No No No No No		0Z1W 0Z1W 0Z1W 0Z1W 0Z1W 0Z1W 0Z1W	27/05/2019 07:19:41 26/05/2019 06:59:21 01/04/2019 07:20:56 20/03/2019 07:57:29 26/02/2019 09:03:08 30/01/2019 08:12:01	40m 40m 60m 60m 60m 60m	LSB LSB USB USB USB USB
	No No No No No No No	No No No No No No No	No No No No No No		OZ1W OZ1W OZ1W OZ1W OZ1W OZ1W OZ1W OZ1W	27/05/2019 07:19:41 26/05/2019 06:59:21 01/04/2019 07:20:56 20/03/2019 07:57:29 26/02/2019 09:03:08 30/01/2019 08:12:01 28/01/2019 08:54:56	40m 40m 60m 60m 60m 60m 60m	LSB LSB USB USB USB USB 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	 Received 	~	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	 ✓ Via 	~	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 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 05/09/2023 09:13:05	KL7ZK OZ1JDA	Denmark	221	2011				
05/09/2023 09:13:51 05/09/2023 09:13:05 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 VALIDATED													
SUBMITTED 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		⋞ – ⋳	
191 E5 -	North Cook Is.	DXCC DXCC DXCC-10	
DXCC@1 VUCC@E	91 J11	O DXCC-12 DXCC-12	
WAC@O 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 <</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		v	281	EA - Spain	EU	Spain			С						1
															L
		tation													L
tation		ly gridsquare													ł
itation voi		WORKED 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 191		I	SUBM	ITTED	GRANTED	
Sub			~			_	e – e		🛩 🗕 🗗	
191 E5 -	North Cook Is.		-				DXCC-RT	TY	DXCC DXCC-10	
DXCC@1			0				DXCC-PH	_	DXCC-10	1
WPX@E WAZ@3	2						2 items		0 items select	ed
WAC@O VUCC@B								status/sub xplicitly sav	mitted/granted 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 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 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- DXCC-12 DXCC-	
WAC@O WAZ@3		0			1004
WPX@E				2 items selected 1 item 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 CONFIRMED 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 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 ok Isl ids	160m	80m	40m	30m	20m	17m	15m 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 DXCC-PH
FFMA@EN VUCC@EN					1 items s		1 items selected
WAC@NA 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 Station configuration	API KEY
···· Confirmations ···· Database	Automatic upload on new QSO
 External Services User preferences 	
Software Configuration CAT interface	
Cluster 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 1
Program Settings	External services
User Configuration - Station Information - My References	QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW
Station configuration	User
Confirmations Database	Upload code
External Services User preferences	Automatic upload on new QSO
Software Configuration 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 Station configuration	User
Confirmations Database	Password
External Services User preferences	QTH Nickname
	Automatic upload on new QSO
Cluster	🖂 Update QSO locator based on EQSL reported locator 🛛 🕜
- Info Providers 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	
 Program Settings Edit program config 	External services
User Configuration Station Information My References	QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW
Station configuration	User 📄
Confirmations Database	Password
- External Services 	Callsign
Software Configuration CAT interface	Automatic upload on new QSO
Cluster 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 ···· Database	Password
External Services User preferences	TQSL exe path 🛛 🕞 😨
	Temporary path (opt)
···· Cluster ··· Info Providers	Station ID 🗸 🕞 🚱
Map Settings Backup	TQSL Private pass
Software integration Connections	My call (opt)
Antenna rotator 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 Columns 3 두	0.2	Vertical 0.00 - Proportional	Inverted
			Horizontal 0.00 Proportional Printer Top margin	Inverted
	Bottom margin 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		 Station 	To 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 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 Via Ponte Tresa 15 Sorengo Ti 6024	▲ HB900✓	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 Step 1: Label choice Select label Avery 8160 ∨ Refresh Edit Single QSO messages (each QSO) O Nothing O Print my refs O Print Comment Label messages (bottom area) 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 Skip initial 0 1 Labels Reset PRINTED status
Step 4: QSO update Selected QSO will be updated to new QSL	Print QSL requiring contribution	Resulting QSL sent status
		Queued V
·		Sent date 17/12/2020
		H

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

E Home Comment I Home Comment Cipboard Act Select Tools	View Form	Protect Sh TT A 184.3 Reflow Rotate View	3% • • -	Help Extras (L T From swriter Highlight From File Comment	Tell me what you	1. 6	Link 🔮 Bookmark 戻) File Attachment Image Annotation Audio & Video Insert	c	ि 🕰 Find	<u>,</u> @• ⊲	
G6CNQ cfm qso: DATE T	20200111155303.4 IME BAND 88:14 15m	IA3HV MODEx2 PSK31	RST 599 * QSL(*)	TO HA3HV Pal Bekei Setalo U. 35 H-7432 Hetes Hungary				G6CNQ cfm qso: DATE 2004-08-07 QSL DIRECT Aland Island (5)		OH0Z BAND MOD 10m SSB		Comce Pr
TO OHOZ Åland Islands Osi Via W0mm Lotw - Oqrs - Direct - Via Åland Islands Åland Island	Bureau			G6CNQ cfm qso: DATE 2004-10-09 QSL DIRECT European Russia (54)	TIME BAND 12:59 15m	NODE: SSB	x2 RST 599* PSE QSL(*)	TO RV3ZZ Mike Semenov Mikha 309506 Staryi Oskol, Po Box Russia European Russia				
	TIME BAND 12:04 10m	SSB	RST 59 * QSL(*)	TO TS7N Kerkennah 2000/2003 Hotel Cercina Sidi Fredj Tunisia				G6CNQ cfm qso: DATE 2003-12-27 QSL DIRECT European Russia (54)		UA3QGT BAND MOD 10m PSK3	Ex2 RST	
TO UA3QGT Nickolay Vereshagin Lesnaja 4 Belogore, Voronezh Obl. Vr, 396576 Russia 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 Skip initial 0 🕞 Labels 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
 Z73DN 07/06/2018 04:59:15 40m FT8 Refs: GB100MPD 09/11/2018 10:58:29 40m SSB Refs: HB9HLM 11/08/2018 13:00:09 20m SSB Refs: Z2920MLC 10/09/2018 13:50:27 20m SSB Refs: VE3UTT 04/06/2018 12:28:00 20m FT8 Refs: YL100V 15/11/2018 20:22:50 80m SSB Refs: 		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 Guadeloupe	EQSL 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 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 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 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 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. 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 Madeira Is.	PF3X	02/03/2016 1	1:07:45	263	Netherland	s 40m	PSK31	NotSent	No	Sent	Confirmed

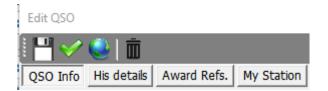
Double clicking on an entry in the list will open the editor window.

www. Statistics										_		\times
Country Statistics Grid Statistics												
Station Callsign	•											
Gabon Georgia Gibraltar Gibraltar Guadeloupe Guadeloupe Guadeloupe Hungary	Statisti Worked QSL EQSL LOTW QRZCOM HAMQTH HRDLOG		Band filte Dim Om Om O items select	~	AM AMTORFI	ode filter EC ms selecte		m 18/07/20 18/07/20 Hide not worke Hide deleted	019 🔲 🔻			
iteland Iceland 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	
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	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		
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tord Howe Is.	PA/I Band	~	· 🔒	Comment						No		
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	N Country	Netherlands	\sim						~	wn: 49 m	ax: 10	000
		ITU 27 \vee CQ 14	~ 263									:
	Freq 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 Albania Algeria Andorra Argentina Armenia Aruba Ascension Island Asiatic Russia	Statistic view b Worked QSL EQSL LOTW QRZCOM HAMQTH HRDLOG CLUBLOG	Band and mode Band filter Image: Image of the state o	Date range C Mode fil C AM AMTORFE ARDOP ATV		onal filters				
Australia			d 0 items sel	- ected					
Austria Azerbaijan		0 items selecte							
Austria Azerbaijan Azores	Callsign	Qso Date	Band	Mode	Station Callsign	Address	Age	AIndex	/
Austria Azerbaijan Azores Bahamas	Callsign PY6AA	0 items selecte	Band		Station Callsign G4POP	Address Rua Dos Radio	-	AIndex 6	/
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Austria Azerbaijan Azores Bahamas Bahamas Balearic Islands Barbados	PY6AA	0 items selecte Qso Date 21/01/2024 1	Band 2m 15m	Mode FM	G4POP	Rua Dos Radio	0	6	2
Austria Azerbaijan Azores Bahamas Balearic Islands Barbados Belarus Belgium	PY6AA PY2OA	Qso Date 21/01/2024 1 18/03/2022 1	Band 2m 15m 17m	Mode FM CW	G4POP G4POP	Rua Dos Radio P.O.Box- 1505	0 0 0	6	2 2 2 0
Austria Azerbaijan Azores Bahamas Balearic Islands Barbados Belarus Belgium Bosnia-Herzegovina	PY6AA PY2OA PY2IQ	O items selecte Qso Date 21/01/2024 1 18/03/2022 1 11/10/2020 1 15/08/2020 1	Band 2m 15m 17m 17m	Mode FM CW FT8	G4POP G4POP G4POP	Rua Dos Radio P.O.Box- 1505 Rua Samaria 9	0 0 0 0	6 6 2	2 2 2 0 0
Austria Azerbaijan Azores Bahamas Balearic Islands Barbados Belarus Belgium Bosnia-Herzegovina Brazi	PY6AA PY2OA PY2IQ PY2RAR PY2CX	Qso Date 21/01/2024 1 18/03/2022 1 11/10/2020 1 15/08/2020 1 15/07/2020 1	Band 2m 15m 17m 17m 15m	Mode FM CW FT8 FT8 FT8 FT8	G4POP G4POP G4POP G4POP G4POP	Rua Dos Radio P.O.Box- 1505 Rua Samaria 9 Avenida 1, 20 Verona 174 0	0 0 0 0 0 0	6 6 2 4 11	A 2000 Control 100 Control
Austria Azerbaijan Azores Bahamas Balearic Islands Barbados Belgium Belgium Bosnia-Herzegovina Belgium Bulgaria Canada	PY6AA PY2OA PY2IQ PY2RAR PY2CX 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 2m 15m 17m 17m 15m 15m 17m	Mode FM CW FT8 FT8 FT8 FT8 FT8 FT8	G4POP G4POP G4POP G4POP G4POP G4POP G4POP G4POP	Rua Dos Radio P.O.Box- 1505 Rua Samaria 9 Avenida 1, 20 Verona 174 0 Rua Samaria 9	0 0 0 0 0 0 0	6 6 2 4 11 3	A 2000 C 2000
- Austria - Azerbajan - Azerbajan - Bahamas Bahamas - Bahamas - Bahamas - Baharas - Belarus - Belgium - Belgium - Bruz - Bruz - Bulgaria	PY6AA PY2OA PY2IQ PY2RAR PY2CX	Qso Date 21/01/2024 1 18/03/2022 1 11/10/2020 1 15/08/2020 1 15/07/2020 1	Band 2m 15m 17m 17m 15m 17m 20m	Mode FM CW FT8 FT8 FT8 FT8	G4POP G4POP G4POP G4POP G4POP	Rua Dos Radio P.O.Box- 1505 Rua Samaria 9 Avenida 1, 20 Verona 174 0	0 0 0 0 0 0 0 0 0	6 6 2 4 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 Vorked QSL EQSL LOTW QRZCOM HAMQTH HRDLOG CLUBLOG	QSO 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 Barbados	PY2OA	18/03/2022 1	15m	CW	G4POP	P.O.Box- 1505	0	6	2
Balearic Islands Barbados Belarus	PY2OA PY2IQ	18/03/2022 1 11/10/2020 1	15m 17m	CW FT8	G4POP G4POP	P.O.Box- 1505 Rua Samaria 9	0	6 2	2
Balearic Islands Barbados	PY2OA	18/03/2022 1	15m 17m	CW	G4POP	P.O.Box- 1505	0	6	2
Balearic Islands Barbados Belarus Belgium Bosnia-Herzegovina Brazil	PY2OA PY2IQ	18/03/2022 1 11/10/2020 1	15m 17m 17m	CW FT8	G4POP G4POP	P.O.Box- 1505 Rua Samaria 9	0 0 0 0	6 2	2
Balearic Islands Barbados Belarus Belgium Bosha-Herzegovina Israzi Bulgaria	PY2OA PY2IQ PY2RAR	18/03/2022 1 11/10/2020 1 15/08/2020 1	15m 17m 17m 15m	CW FT8 FT8	G4POP G4POP G4POP	P.O.Box- 1505 Rua Samaria 9 Avenida 1, 20	0 0 0 0	6 2 4	2 0 0 0
Balearic Islands Barbados Belarus Belgium Bosnia-Herzegovina Brazil	PY2OA PY2IQ PY2RAR PY2CX	18/03/2022 1 11/10/2020 1 15/08/2020 1 15/07/2020 1	15m 17m 17m 15m 17m	CW FT8 FT8 FT8 FT8	G4POP G4POP G4POP G4POP	P.O.Box- 1505 Rua Samaria 9 Avenida 1, 20 Verona 174 0	0 0 0 0 0	6 2 4 11	2 0 0

Filter by contact data

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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 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 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 Bosnia-Herzegovina		15/07/2020 1							2
Capacity Telenter 14/07/2017 1 2011 F10 04POP Albeito Jose 0 0 0	Belgium Bosnia-Herzegovina Brazil	PY2CX			ET9	G4DOD	Rua Samaria O			20
	Belgium Bosnia-Herzegovina Brazil Bulgaria Canada	PY2CX PY2IQ	14/02/2018 1	17m					0	0
Cayma Islands	Belgium Bosnia-Herzegovina Brazil Bulgaria	PY2CX PY2IQ	14/02/2018 1 14/07/2017 1	17m 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 Worked QSL EQSL LOTW QRZCOM HAMQTH HRDLOG CLUBLOG	Band and mode	orked	Contact data Ar	dditional filters				
Azerbaijan 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 14/02/2018 1		FT8	G4POP	Rua Samaria 9	0		
	PY2CX		17m	FT8 FT8	G4POP 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 DIGITAL	4-5 4-5	🛩 — 🗇 🧔 Cont 🔹		
Reference to Reference view	160m PHONE PHONE 40m 30m	AM AF AMTORFEC AN ARDOP AS	 □ Abu Ail Is. [deleted] □ Afghanistan □ Agalega & St. Brandon Is. □ Aland Island 	^	
Award resets yearly	20m	C4FM NA 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	^			
To 28/05/2020	AF SA				
	AS AS				
IGNORE ALL FILTERS			Refresh		
0	AN AN	~	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

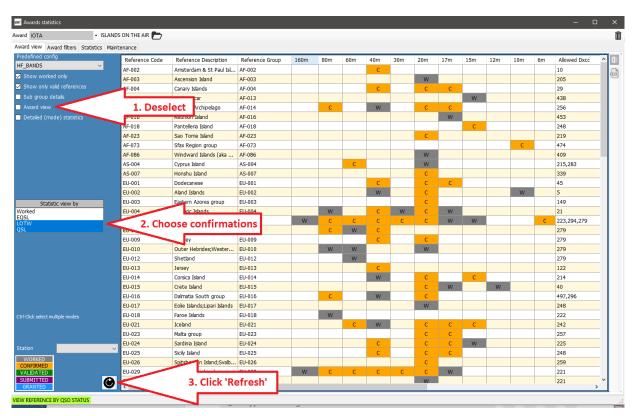
Some awards do not require confirmation by the normal methods of paper QSL's, LOTW, eQSL etc because the awards are confirmed and credited by an upload to the award manager only e.g. IOTA and SOTA.

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	✓															

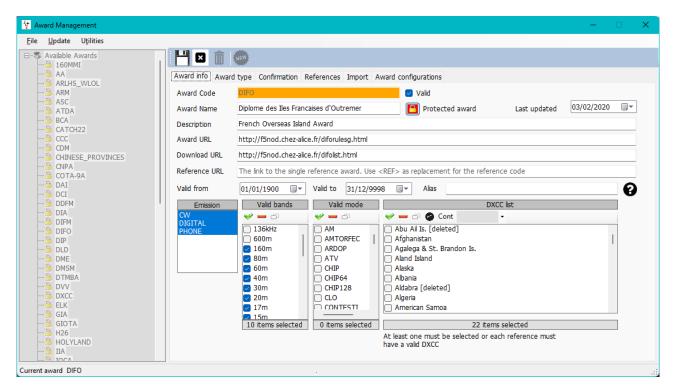
It is possible to choose to display confirmations by:

- 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: 11:40:10.414 Info: 11:40:10.455 Info: 11:42:02.144 Info: 11:42:02.148 Info: 11:42:02.198 Info: 11:42:02.235 Info: 11:42:02.235 Info: 11:42:42.934 Info: 11:42:42.924 Info: 11:42:42.924 Info: 11:42:42.924 Info:	* [AwardsDatabase][45 ms] : Awards list retrieved from database [AwardsDatabase] : Loading Awards list from database [AwardsDatabase][45 ms] : Awards list retrieved from database		^ >
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 Group AF-002 Sub AF-002 Amsterdam St I ☑ IOTA@AF-002 ☑ DXCC@10 ☑ WAZ@39	Paul Islands	References Search AF-002	Ref. Status VALIDATEI SUBMITTED V — C HF bands 1 items selected Changes in status/sub 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	 AF-017 	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 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					

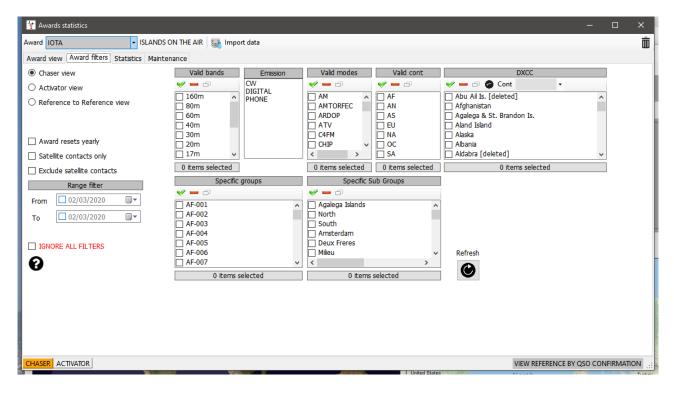
- 6. Click on the relevant action (Remove Granted, Set Granted, Set confirmed etc.)
- 7. Click 'OK' in the warning box to proceed

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 Reference Description	rt data 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 CONFIRMED	HB/SH-002	Wannenberg/ Wannebärg	Switzerland						W					
ALIDATED	HB/SO-001	Hasenmatt	Switzerland						W					
SUBMITTED GRANTED	HR/SOL002	Granchanharg	Switzerland				\M/							~

- 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. LogiOM is able to rebuild references from QSO data, if enough data are available. 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 be AUTOMATEALLY recovered and will be lost. Use at your own text WIDE AWARD REFERENCES RESCAN AWARD REFERENCES RESCAN AWARD REFERENCES	E Award view Award filters Statistics Maintenance			
	This button will REMOVE all references of the current awards from your log. Log4OM is able to rebuild references from QSO data, if enough data are available. 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			
	u de la constante d			
	e			
	Ia			
	7			
	1			
	1			
	1			
CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::	1			
CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::				
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	D 🔀
Field separator	, 🗸 🗸 File contains header	
Preview		[
"AF-002","FT5ZM","2 "AF-003","ZD8Z","00 "AF-004","EA8AJO","	"UTC", "Count for", "Method", "Status" 2014-01-29 11:21:00", "HF bands", "QSL", "Accepted" 100-00-00 00:00:00", "HF bands", "QSL", "Accepted" 1000-00-00 00:00:00", "HF bands", "QSL", "Accepted" 1000-00-00 00:00:00", "HF bands", "QSL", "Accepted"	^ >
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." 1 # "Callsign" 2 # "UTC" 3 # "Count for" 4 # "Method" 5 # "Status" ✓ 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 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 □ 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: AWARD CODE;OLD REFERENCE;NEW RF ex: IOTA;EU-155;EU-018;Pantelleria I (*) fields are optional 2 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 	~
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 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 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 AF-004	Ascension Island	AF-003 AF-004				w		w V	w				-			1
Sub group details	AF-004	Canary Islands	AF-004 AF-013				w		V	w	w						
Award view	AF-013 AF-014	Madagascar Madeira Archipelago	AF-013 AF-014		w		w		w	v	w						
	AF-014	Reunion Island	AF-014 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 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	 EU-021 	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 UBMITTED 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 ~ 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 My station (
Station Information My References Station configuration Confirmations Database External Services	Award Group Sub	SOTA	~ ~	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@ ☑ SOTA@	EU-005 DOE/OO-271	•	G/CE-005 G/DC-005 G/DC-005 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 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/ DL/HB9BRJ/P 03/ DL/HB9BRJ/P 03/	01.2820.12.289 DM.RW.253 LAMHL; CW. HAPNE; 01.2820.12.29 LDM.RW.253 LAMHL; CW. UADAY, 01.2820.12.52 DM.RW.253 LAMHL; CW.EAR3Y, 01.2020.12.52 DM.RW.253 LAMHL; CW.IABACH, 01.2020.12.53 DM.RW.253 LAMHL; CW.IABACH, 01.2020.12.55 DM.RW.253 LAMHL; CW.IABACH,
	kis into relevant destination fields
bing and drop no	Clear
Award SOTA	 Multiple credit separator Load config Save config
Fields identified	QSO match fields Award match fields Award match rules
0 # DL/HB9BRJ/F	
1 # 03/01/2020 2 # 12:49	HA7NE DM/BW-235
3 # DM/BW-235 4 # 14MHz	14MHz
5 # CW 6 # HA7NE 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:

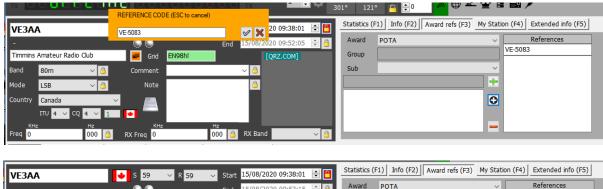
This is a MERGE (Update) function it does not add QSO's to the logbook that do not exist in the logbook it is used to UPDATE existing records.

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 Freq 0	Hz 000	KHz RX Freg 0	Hz 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 - 🔒 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 CHIP64] Albania] 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 ust have a valid DXCC	ance		
7\\/D		¥					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 DIGITAL	e e e	V - 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 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 AF-019		^
Sub			~	EU-019		
<u>EU-025 S</u>	icily Island			EU-025		
	DEU-025		e	EU-028 EU-031	_	
			÷.	EU-045		
		6	-	EU-050 EU-051		,

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	 Alias WFF 	-			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 QSOFIELDS
Award will s	CALLSIGN 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 QSL	LOTW 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>	
Confirmation CUSTOM EQSL LOTW	Validation CUSTOM EQSL LOTW		
QSL	QSL		

AWARD REFERENCES

💾 🛛 💼 🐗	
Award info Award type Confirmation	References Import Award configurations
Reference list Search	💾 🛛 前 👹 📻 Reference count: 1172 / 1172
AF-001 AF-002 AF-003 AF-004 AF-005	Reference code Valid Description
AF-006 AF-007 AF-008 AF-009 AF-010 AF-011 AF-012 AF-013	Reference subgroup Valid from 01/01/1900 v to 31/12/9998 v ^(.*)(word1 word2)(.*)\$ Score 0
AF-014 AF-015 AF-016 AF-017 AF-018 AF-019 AF-020 AF-021 AF-021 AF-022 AF-023 AF-024	DXCC list Cont Cont Abu Ail Is. [deleted] Afghanistan Agalega & St. Brandon Is. Aland Island Alaska Albania
AF-025 AF-026 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				D 🔀
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 AL;Alessandria;Pie AN;Ancona;March	gione;Prefixes;Note;Alias;EndDate;Deleted lia;IT9-IW9-IG9-IQ9;;;; emonte;I1-IK1-IW1-IZ1-IQ1-IU1;;;; ne;I6-IK6-IW6-IZ6-IQ6-IU6;;;; 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 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	- - X

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 Sub grou Award v	orked only nly valid referen up details			

DXCC is a clear example of this:

Award definitions
Search
10M
12M
15M
160M
17M
20M
2M
30M
40M
SBANDS
6M
70CM 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 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 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 AF	^		ß
NA AF SA	^		G
□ NA □ AF □ SA □ AS	^		G
□ NA □ AF □ SA □ AS □ OC □ 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	 Multiple credit se 	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 Mode Date	Date Time format
기 Allow reuse of field	Band Mode Date Time 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 0 # "Ref. No." 1 # "Callsign" 2 # "UTC" 3 # "Count for" 4 # "Method" 5 # "Status"	QSO match fields Fields match "Callsign" Band Mode Date	Award match fields Ref. No."	Award match rules Date Time format		
Allow reuse of fields	Time "UTC"]	уууу ~ / ~ ММ 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." 1 # "Callsign" 2 # "UTC"	Mark reference O Confirmed O Validated Use fields Multiple values accepted with separator
3 # "Count for" 4 # "Method" 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 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 https://www.iota-world.org/

And selecting DOWNLOAD QSOS (CSV) after login.

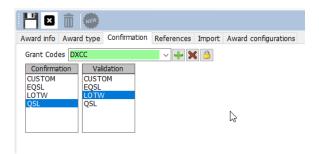
MANAGEMENT NEWS	MY IOTA	MY OPERA	TIONS
IME INFORMATION LOG	PENDING QSOS	ſS	IOTA SHOP
	ACCEPTED QSOS		
	SUMMARIES	•	
	ADD QSOS FROM CI	LUB LOG	
	ADD CONTEST QSO	S	
	ADD QSLS		
	SUBMIT HF APPLIC	ATION	
-	SUBMIT VHF APPLI	ICATION	
-	AWARDS		
fo@iota-world.org	DOWNLOAD QSOS ((CSV)	

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 1 # "Ca 2 # "U" 3 # "Co 4 # "Me 5 # "St	allsign" TC" punt for" ethod	Fields match "Callsign" Band 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 ef. No."	QSO match field	s Award match fields	Award match rules	Multiple columns	
1 # "Ca 2 # "U	allsign"	Mark reference	○ Confirmed ○ Val	idated 💿 Use fields	Multiple values ac separator	cepted with
	ount for" ethod"	Set confirmed		is Value		9 9
			ED award tags from field 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		v	V	v	V	v	
	3	Afghanistan	AS					V	С	•
Show only valid references	4	Agalega & St	AF							
Sub group details Award view 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		 References 		
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 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 SUBMITTED	18	Azerbaijan	AS			v	V	V	V	_

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 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. 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 15M Name 80m	
	Description Contacts must be made on 80 meters since November 15, 1945 ZM 1945	
	30M 40M	
	SBANDS 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 MIXED To 31/12/9998	
🌤 WAIP 🌤 WAJA 🌤 WALA	PHONE 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		× × 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 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 UIFM UIFO 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 DMSM DBB	Field separator , Y	
DTC DTMBA	Preview 3	-
DVV DXCC	"reference", "name", "active", "entityld", "locationDesc." "K-0001", "Acada National Park", "1", "291", "US-ME" "K-6002", "Alagnak Wild New National Park", "1", "6", "US-KK"	A
	"K-0003"."Aniak-chak National Preserve"."1"."6","US-AK" "K-0004","Arches National Park","1","2911,"US-UT"	
H26 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" "K-0001", "Acadia National Park", "1", "291", "US-ME" "K-0002", "Anajanak Wild River National Park", "1", "6", "US-AK" "K-0003", "Anajachak National Preserve", "1", "6", "US-AK" "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 Select file and format; Timport config import. Reference format: YYYY / V MM / / dd Date format: YYYY / V MM / / dd DXCC code in reference Mutpie DXCC separator , DXCC schar PREFIX Reference Skip first row</th> <th>Nex</th> <th>t step</th> <th></th>	Award fro. Award type Confirmation References. Import. Award configurations Select file and format; Timport config import. Reference format: YYYY / V MM / / dd Date format: YYYY / V MM / / dd DXCC code in reference Mutpie DXCC separator , DXCC schar PREFIX Reference 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 Link: Make sure the file is save	d as an U	point to the downloaded CSV file <u>http://wwff.co/wwff-data/wwff_directory.csv</u> ITF-8 file!!!
Field separator: ,			
Allow reuse of fields:	checked		
Field settings:	Reference Code: DXCC: Valid from: Reference Description: Gridsquare: Valid to: Reference group: Activation Score: Reference alias: Reference sub group: Activation Bonus Score:	referen - country -	dxcc validFrom name -
Valid settings:	Valid field: Valid value:		status 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			D 🔀
Field separator	, ~					
Preview						
1SFF-0001,active,Sp 3AFF-0001,active,"R 3AFF-0002,active,"T 3BFF-0001,active,"B	ratly,1SFF,1S,1S,1 ?serve du Larvotto ombant ? corail des	S.AS,n/a ",3AFF,3A, s Sp?lugues	a,0000-00-00,000 3A,3A,EU,-,,,n/a s '',3AFF,3A,3A,3/	.ocator,latitude,longitude,IUCNc 10-00-00,,0,"Spratty Archipe ,0000-00-00,0000-00-00,,0, A,EU,n/a,0000-00-00,0000-0 /a,0000-00-00,0000-00(,Monaco,-)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 16 # lastMod 17 # changeLog	↑ refere			dxcc Gridsquare	ValidFrom	
16 # lastMod 17 # changeLog 18 # reviewFlag	^					
16 # lastMod 17 # changeLog	name	Ξγ		Gridsquare	Valid to	
16 # lastMod 17 # changeLog 18 # reviewFlag 19 # specialFlags 20 # website 21 # country 22 # region	name count	Ξγ 1	value:	Gridsquare 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	^
	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:)	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
```

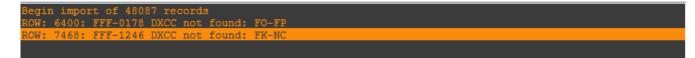
We have similar issues in row 9118, 9126, 9127, 9128...

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>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
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
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.

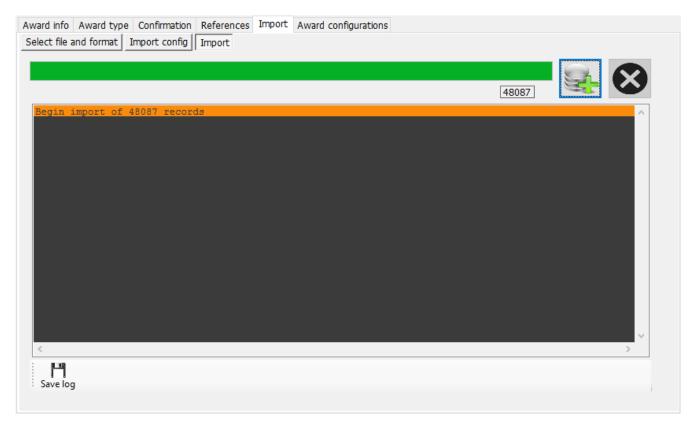
After fixing all the CR/LF problems in the CSV file, my import log file looks like this:



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

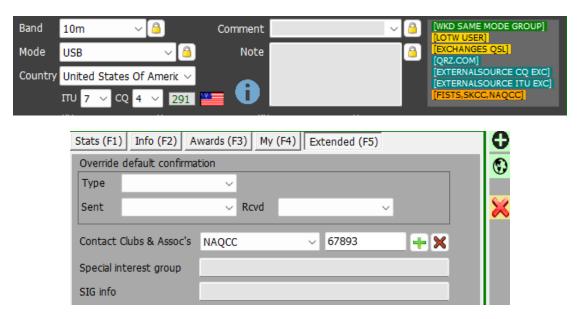
Not all awards are of interest to the user and in this case the user can select just the awards of interest to be displayed in the main UI by selecting settings/Program configuration/User preferences and then selecting the awards tab.

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	- 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.

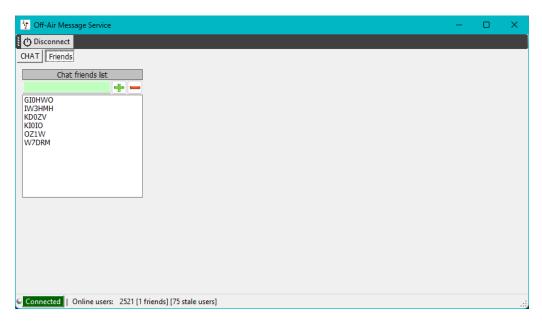
User Chat system (Off-Air Messages)

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 2E0EPB	L4 L4
	2E0FNM	GT
	2E0FOA 2E0FWE	L4 GT
	2E0GSF	GT
	2E0GSZ	GT
	2E0HGT	L4
	-	
•	· ·	
Connected Online users: 2512 [1 friends] [72 stale users]		

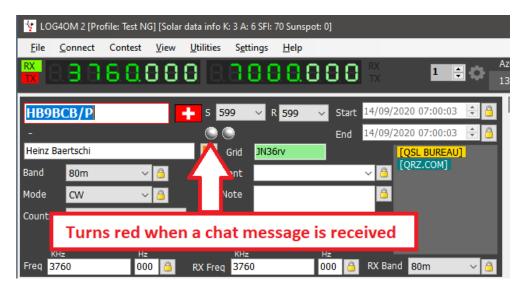
- 6. Select friends in the list and right click then click 'add or remove friend' to add them to the friends list.
- 7. Check the 'Show friends' box to review friends
- 8. A list of friends is displayed in the 'Friends' tab



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 Map Settings Backup VOACAP Propagation Auto Start					
Configuration Map Settings Backup VOACAP Propagation Auto Start 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
	₩ = 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 ▷ [UDP Proxy] Remote Control PP PROXY TUBOUND UDP proxy connections · - ○ 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 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 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 - Map Settings - Backup - 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 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 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 - WSJT-x / JTDX - Web integration	To avoid circular references do not load QSOs on services the This operation will trigger their sending (POST) again indefi	nat create ADIF files that are, at the same time, monitored by Log4OM. 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 Station configuration Local weather Onfirmations Database External Services	ADIF Functions ADIF Monitor ADIF Output ADIF POST 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 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 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 Log4OM Team user Log4OM Team password	i to manage awards. Normal users must ignore them

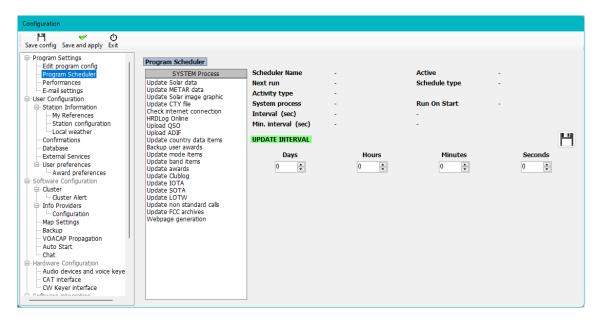
Edit Program config

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 ♥ ♥ Save config Save and apply Exit		
Program Settings Edit program config	Edit program config Please no	ote those changes may create te
Program Scheduler Performances	Program restore	
E-mail settings	Reset grid layouts	Reset map cache
Station Information	Remove user files	Reset window positions
My References 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 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

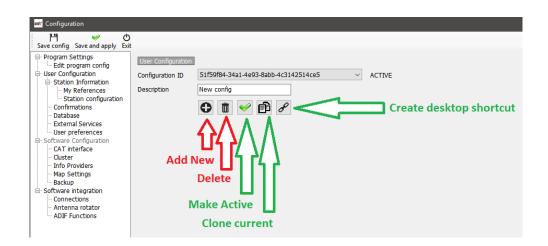
The user may have as many different configurations (Identities or setups) required, perhaps a Club, home, cabin, contest, special event, DXPedition or another family member configuration.

- 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 My City My Postcode My State My County My Sig	Terry My street My City My Post Code My County Special Interest Groups 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 Owner Callsign 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.

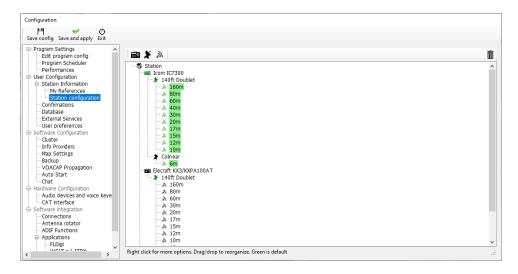
Example of a typical set up as screenshot below:

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

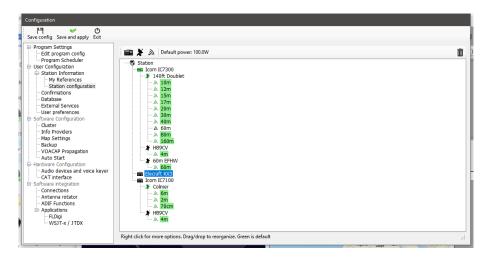
Adding hardware

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 🕐 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 60m EFHW	
	SATELLITE MO	DE				6m Colinier 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. ATION INFORMATION screen to change this value.
Award preferences Software Configuration Cluster Cluster Alert Info Providers	 100 Km / 62 Mi range 150 Km / 93 Mi range 200 Km / 124 Mi range 300 Km / 124 Mi range 	ည	Weather report generated at day 2 16:20 UTC UTC for EGMC temp 6°C (42.8°F) Pressure 1024 mbar
Configuration Map Settings Backup VOACAP Propagation Auto Start			Clouds base 1900 Feet Cumulonimbus Clouds base 3300 Feet Broken
- Chat - 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 Clouds base 3300 Feet Broken	EA1FIA Di
Wind 20 Degree 8 Knot	EA7GI DI 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 Confirmations	New	Test	
User preferences Software Configuration Cluster			
Info Providers Map Settings			
Backup VOACAP Propagation Auto Start			
Hardware Configuration			
CAT interface			
Connections Antenna rotator 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.

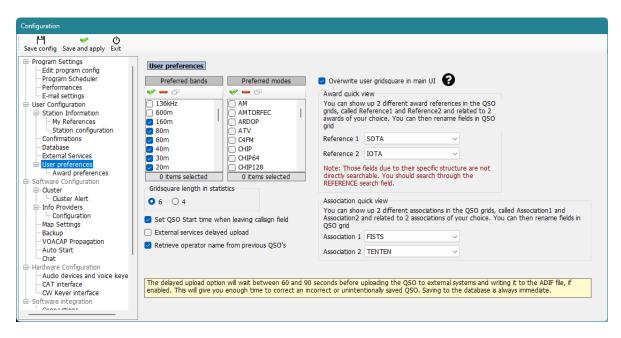
Program Settings	External services			
Edit program config Program Scheduler	QRZ.COM CLUBLOG	HRDLOG.NET EQSL HAMQTH LOTW		
Performances	User	G4POP	Upload flag	
- Station Information - My References	Password	*****	Consider QSO to SENT status is:	be uploaded when
Station configuration	TQSL exe path	C:\Program Files (x86)\TrustedQSL\tqsl.exe 🗈 😭		This should match with default LOTW SENT STATUS set in
- Database - External Services	Temporary path	C:\Users\g4poparrl.net\AppData\Roaming\Log4(🖻 🚱	○ REQUESTED	Confirmations tab, or new QSO will not be uploaded automatically
User preferences	Station ID	Home 🗸 🗁 🕄		deconductory
Software Configuration Cluster	TQSL Private pass			
Info Providers Map Settings	My call (opt)			
Backup VOACAP Propagation	Automatic upload	nn close		
Auto Start 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 - Applications - FLDigi - 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

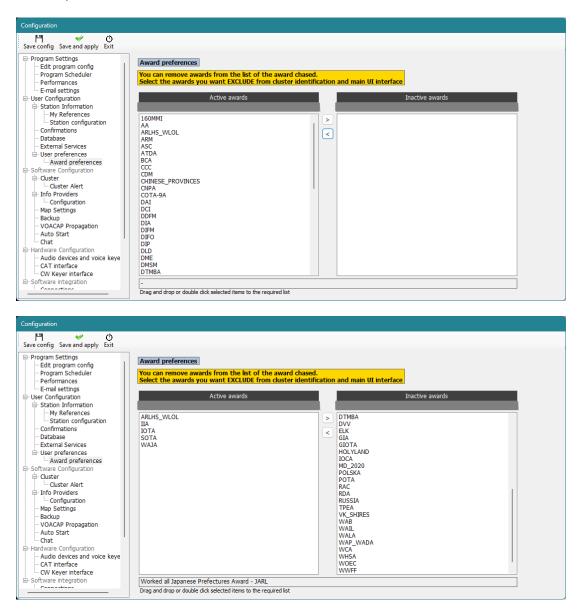
This window enables the user to select the awards of interest, this can save resources because the inactive awards are excluded from the intelligent cluster award identification and the main UI.

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.

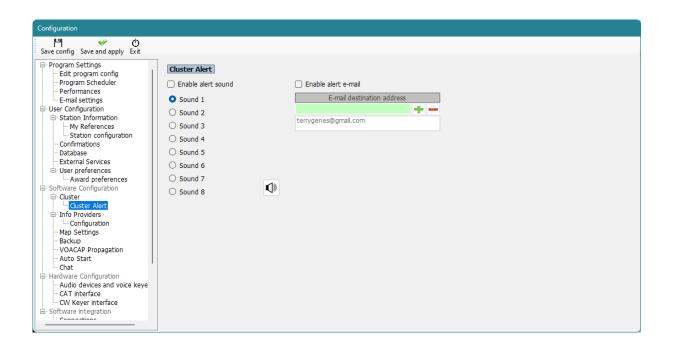


Software Configuration

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 Cluster auto-start Server auto-start		Cluster highlight colors Country not worked	COUNTRY NOT WORKED	21	۵.
User Configuration Station Information My References Station configuration	 Show cluster grouped [recom Show User Defined clusters 	mended]	Band/Mode not wrkd/conf Worked/Confirmed	B/M NOT WORKED WORKED	8) 8)	2
Confirmations Database External Services User preferences	 Show stable clusters Show experimental clusters Show inactive clusters 		Station not worked Station worked	STATION NOT WORKED	2) 2)	a
Award preferences	Cluster server port Cluster max age (min)	7300	Station worked same band Station worked same mode Station worked band mode	WORKED SAME BAND WORKED SAME MODE WORKED SAME BAND + MODE	8) 8) 8)	4 4 4
⊡- Info Providers Configuration Map Settings Backup	Maximum cluster items Band map max age (min)	1000 ÷ ?	Station wkd same mode type Station wkd band mod type	WORKED SAME MODE TYPE WKD SAME BAND + MODE TYPE	2) 2)	ð
VOACAP Propagation Auto Start Chat Hardware Configuration	Maximum band map items Supercluster max age (min)	60 🗘	Award highlight	HIGHLIGHT	٥ì	٩
- Audio devices and voice keye - CAT interface - CW Keyer interface - Software integration	Cluster overload control (spot/min 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 E-mail settings		source	source				• Primary source
- User Configuration - Station Information - Station		\bigcirc Disabled	 Disabled 				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. noing slow search response time	25		
Map Settings Backup							
···· VOACAP Propagation ···· Auto Start							
- Hardware Configuration							
Audio devices and voice keye CAT interface							
Connection							

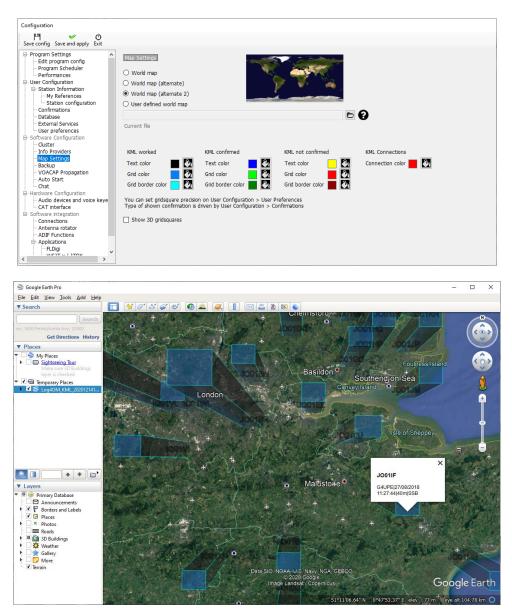
Map settings

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 ···· Info Providers	KML worked	KML confirmed	KML not confirmed	KML Connections
	Text color	Text color	Text color 📃 💽	Connection color 📕 💽
	Grid color 🗾 🚱 Grid border color 🔳 🚱	Grid color 📕 🚱	Grid color 📕 🚱 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 Backup rotation	NOT ADIF] (SQLite database only) C:\Users\(g4pop)AppData\Roaming\Log4OM2\backup\ If backup folder is not set, Log4OM will create backup in the default folder 13 2 12 backup The program will keep a number of historical backup copies up to the indicated va (indicates the number of different days. Multiple backup in the same day are cons ackups NOT ADIF] (SQLite database only) [NOT RECOMMENDED] C:\Users\(g4pop)\OneDrive\Documents\Log4OM Test backups\ 13 2 Enable rotation (default off) 2 ZIP additional backup	lue 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 WSJT	Process File Name FLAGS	Enabled SINGLETON KILL	Wn Process name	•
 Backup VOACAP Propagation Auto Staff Hardware Configuration Auto devices and voice keyer CAT interface Software integration Connections Antenar otator ADIF Functions FLDigi 	NOTE: Auto Start will work dree Cloning a profile will NOT clone h	Plan tly with app 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 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 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. Press ESC to stop
- Station Information	Recording							
My References 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 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 Map Settings								
Backup								
VOACAP Propagation								
- Auto Start								
- Chat 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 Performances	
- E-mail settings - User Configuration	CAT Engine TCIProtocol 🗸 🗹 CAT auto-start
Station Information	CAT delay (ms) 0 CAT delay between commands
 My References Station configuration 	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 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 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 ···· Program Scheduler	Settings Omnirigi Hamlib TCI
Performances	OMNIRIG Disconnect CAT at first OFF event
E-mail settings User Configuration	
Station Information	
My References Station configuration	
···· Confirmations	
··· Database ··· External Services	
User preferences	
Software Configuration	
Cluster Cluster Alert	
- Info Providers	
Configuration 	
Backup	
··· VOACAP Propagation ··· Auto Start	
Chat	
Hardware Configuration	
Hardware Configuration Audio devices and voice keye CAT interface CW Keyer interface	
Hardware Configuration Audio devices and voice keye CAT interface CW Keyer interface	
Hardware Configuration Audio devices and voice keye CAT interface CW Keyer interface Software integration	
Hardware Configuration 	
Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface Software integration	
Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface Software integration 	
Hardware Configuration Audio devices and voice keye CAT interface CW Keyer interface CW Keyer interface CW Keyer interface CW transmission Interface CW Keyer interface CW Keyer	
Hardware Configuration - Audio devices and voice keye CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - CW service	CAT Management
Hardware Configuration Audio devices and voice keye CAT interface CW Keyer interface Software integration Figuration Constituent interface CW Keyer interface CW Keyer interface	
Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface Software intergration - Construction - Configuration - Configuration - Edit program Scheduler - Performances - Performances	Settings Omnirig Hamlib TCI
ardvare Configuration Audio devices and voice keye CAT interface CW Keyer interface Software integration Consortions inguration Config Save and apply Exit Program Scheduler Performances E-mail settings	Settings Omnirig Hamlib TCI HAMLIB PARAMETERS
Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - CW seyer inte	Settings Omnirig Hamlib TCL HAMLIB PARAMETERS
Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - CW Software integration - Consections - Configuration - Configurat	Settings Omnirig Hamlib TCI HAMLIB PARAMETERS TCP Connection RIG Model Connect to active HAMLIB instance
ardvare Configuration Audio devices and voice keye CAT interface 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 Audio devices and voice keye CAT interface 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 - Audio devices and voice keye CAT interface - 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 - Audio devices and voice keye - CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - CW the configuration - Configuration - Edit program Config - Program Scheduler - Program Scheduler - Program Scheduler - Program Scheduler - Performances - Email settings - User Configuration - Station Information - My References - Station Configuration - Database - External Services - User preferences - Schward preferences - Schward preferences - Schward configuration - Outer - User Preferences - Station Configuration - Database - External Services - User preferences - Schward preferences - Schward Configuration - Custer Alert - 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 - Audio devices and voice keye - CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - Configuration - Configuration - Configuration - Forgarm Scheduler - Program Scheduler - Station Information - Station Information - Station configuration - Database - External Services - User preferences - Schware Configuration - 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 - Audio devices and voice keye - CAT interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - CW Keyer interface - Configuration - Configuration - Configuration - Edit program Config - Program Scheduler - Program Scheduler - Program Scheduler - Program Scheduler - Program Configuration - My References - Station Information - Database - External Services - Ward preferences - Station Information - Database - External Services - Configuration - Configuration - Configuration - Configuration - Configuration - Configuration - Configuration - Configuration - Configuration - Custer Alert - Configuration - VOACAP Propagation - Auto Start - Chat Hardware Configuration - Auto Start - 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 💞 👌 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 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 UDP DP Proxy Remote Control UDP INBOUND UDP Inbound connections UDP_INBOUND] [IT_MESSAGE] [2237] INCOMING 3T MESSAGE [UDP_INBOUND] [ADIF_MESSAGE] [2234] INCOMING 3TALERT/C 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 → Audio devices and voice keye → CAT interface → CW Keyer Interface → CW Araver Integration → Connections → Antenna rotator → ADIF Functions ↔ Applications → Applications → Web integration	0 items selected	
onfiguration ♀ ♦		
ave config Save and apply Exit My References – Station configuration – Local weather – Confirmations – Database – External Senices – Waer preferences – Avard preferences – Avard preferences – Stothware Configuration ⊕ Custer – 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	 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 	
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 Disable rotor support PSTRotator Send Azimuth Send Elevation PSTRotator 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		
 Save config Save and apply Exit My References Station configuration Local weather Oconfirmations Database External Services User preferences Software Configuration Custer Alert Endition Settings Backup Volker Alert Endition Settings Auto Start Chat Hardware Configuration Auto Start Chat Hardware Configuration Auto Start Chat Software Interface Software Interface Software Interface Software Interface Software Interface ADIF Functions Anterface ADIF Functions Applications Applications Applications Applications Applications Applications Applications 	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 └┦ ❤ Ŏ 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 Value		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 <tattoin +="" at="" callsign="" callsign<br="" field="" our="" replace="" tattoin="" with=""><datet> replace field with UTC date in format yyyyMidddHimms CADIE > replace field with UTC date in format yyyyMiddd <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 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 Start service FLDigi instance address FLDigi instance port	http://127.0.0.1 7342 ADIF Import must be selected from the ADIF import configur	_ 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 Edit proor fo User Configuration - Station - Station - Station - Station - Station - Station - Station - Confirmat - Database - External Services - External Services - External Services - External Services - Software Configuration - CAT Interface - Catter - Info Providers - Backup - Software Integration - Connections - Antenna rotator - 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

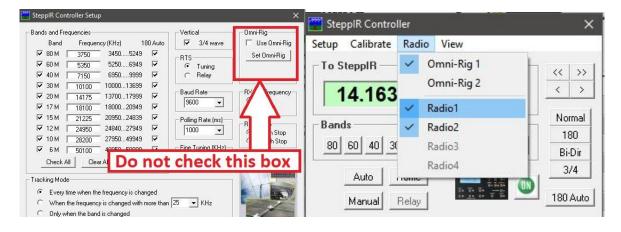
Configuration	
H	
Save config Save and apply Exit	
Program Settings Edit program config	Antenna Rotator
F Program Scheduler	O Disable rotor support To activate integration UDP port and destination IP must be indicated
 User Configuration Station Information 	PSTRotator
My References	Connections
Station configuration	Send Azimuth
C Confirmations Database	Send Elevation
- External Services	PSTRotator
User preferences	✓ Send Callsign ✓ Send Frequency (SteppIR)
	SteppIR radio # 1 🖨
 Info Providers Map Settings 	
Backup	
- VOACAP Propagation - Auto Start	
Hardware Configuration	
- Audio devices and voice keyer CAT interface	
Software integration	
Connections 	
- ADIF Functions	
Applications FLDigi	
WSJT-x / JTDX	
108572 EA2DNO/P 20M	PHUNE 14285.0 La Soan EA2/8E-038 EA2DUA
Configuration	
- Coningulation 	
Save config Save and apply Exit	
Program Settings	Connections
- Edit program config 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 Database	
External Services	Default answer on msg received Broadcast Destination IP Address 127.0.0.1
User preferences Software Configuration	
Cluster	
- Info Providers Map Settings	UDP Inbound connections UDP Outbound connections
Backup	
- VOACAP Propagation 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 ADIF Functions	0 items selected 0 items selected
Applications	WSJT-X default port: 2237 PSTRotator default port: 12040
FLDigi 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 ⁰ 30 300 270 •	Presets Antenna Offset Antenna Limits 3dB Bearnwidth Refresh Rate >	QRB Presets QRB 1 7 QTH Locator 2 8 3 9	Ethernet Port number	Tracking by
240 - 210 180 150	Trackers Setup Controllers Setup Distance Unit Label Parking Setup	Vin-Test Setup J N1MM Setup 2 Logger32 Setup 2 TACLog Setup LOG-X Setup L	12040 By default	C Callsign Save
Normal 180 Bi-Dir 3/4 180 Auto	Shortcuts Setup Google Maps Setup Start / Close Ext Programs Close by Ext Program	CommCat Setup UR5EQF / LogHX Setup DXLab Setup Log4OM Setup		Settings 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					∧ 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

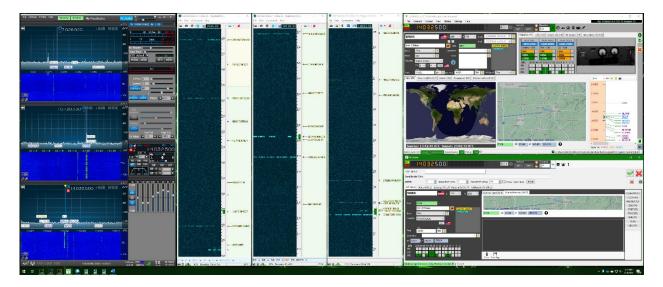
Why use Slice Master

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							*	×
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		
 Enable aggregation server 		
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	
 Software integration 	
Connections 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

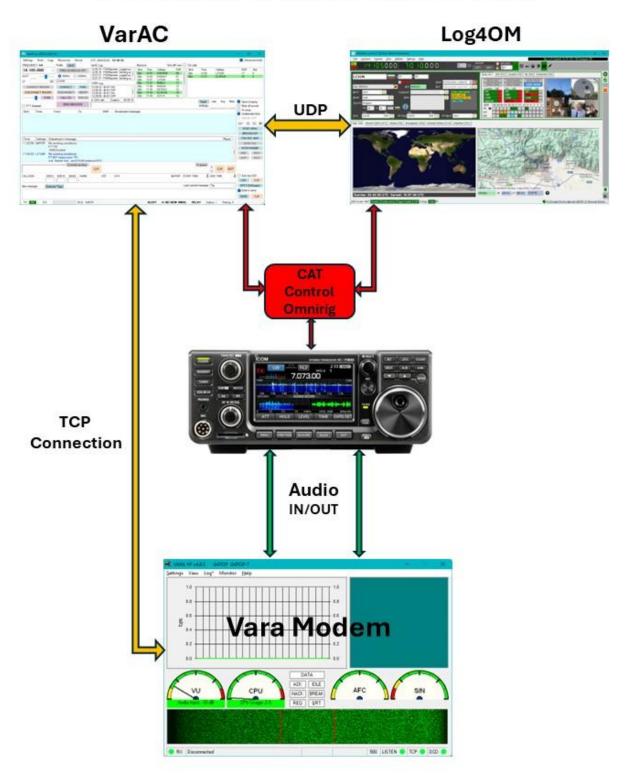
If the user is already set up for WSJT or other data modes then adding VarAC is simple if using Omnirig.

- 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 reccommended in this configuration, the user may want to use a specific ADIF message to log QSO's into Log4OM. 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: Premary LOP Server LOP Server: 127.0.0.1	ADIF_INBOUND message into Log4OM listening on port 2333 The Log4OM default port should also be updated to 2333 instead of 2234	PLEASE NOTE: DO NOT ALSO CREATE A JT CONNECTION. If you create also a JT CONNECTION The QSO will be received twice by Log4OM, potentially causing overhead (The QSO will not be logged due to duplicate keys check, but there wil be a lot of errors in 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 40M2
	(f) Tables 2.665 (sensing) (1) Copying Scalater 2.169(CH102) (2) Copying Scalater 2.169(CH102)	2 Logging Call to LogfOM IP Address	Default answer on mag received	LERTYOT ADDE
Types of types o	Would of all the second s		Preset config 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'

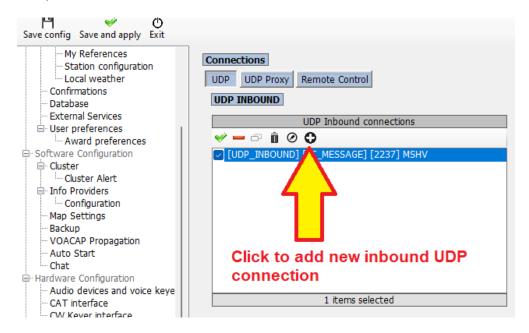
6. Ensure that all Log4OM and WSJT UDP settings MATCH and are not already in use by other software.

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	H
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	, 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 - Chat - Auto Start - Chat - Audio devices and voice keye - CAT interface - CWK Keyer interface - CWK Keyer interface - CWK Keyer interface - Software integration - ADIF Functions - 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			
 VOACAP Propagation Auto Start Chat Hardware Configuration Audio devices and voice keye CAT interface Software integration Connections Antenna rotator ADIF Functions Applications FLDigi 			
Auto Start - Chat - Hardware Configuration - Audio devices and voice keye - CAT interface - CWK Keyer interface - CWK Keyer interface - Software integration - ADIF Functions - ADIF functions			
Chat Chat Audio devices and voice keye CAT interface CAT interface CAT interface Software integration Antenna rotator ADIF Functions Applications 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 ADJF Functions ADJF Functions ADJF Functions ADJF Functions ADJF Functions ADJF Functions ADJF Functions ADJF Functions ADJF Functions 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 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				*	
				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					
 Clear <u>D</u>X call and g 	rid after	logging	UDF	port:	2333	\$				
 Clear DX call and g 	rid on ex	it	v	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 Enable gQSL send Ugername: Pgssword:	ing					JP server				
Enable gQSL send J <u>e</u> ername: Password:	ling					₩ server				
Enable gQSL send Jgername: Password: QTH Nickname:	ling					₩ server				
Enable gQSL send	ing	0.0.1				ccept UDP reques				
Enable gQSL send Jgername: Pgssword: 2TH Nickname: imary UDP Server	127.0					ccept UDP reques	UDP reque			
Enable gQSL send Jgername: Pgssword: 2TH Nickname: imary UDP Server IDP Server: IDP Server port numbe	127. er: 223	7				ccept UDP reques	UDP reque			
Enable gQSL send Jgername: Password: 2TH Nickname: Imary UDP Server IDP Server:	127.1 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 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 Port Connection name Service type 0 Broadcast Destination IP Address 127.0.0.1
Info Providers	UDP Inbound connections	UDP Outbound connections
Map Settings 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 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 Ugername: Password: QTH Nichname: DP Server: IDP Server:	Enable QQSL sending ✓ Enable DXSummit Spottin Ugername: Password: QTH Nichname: DP Server: IDP Server:	Prompt me to log QSC Enable automatic logg Convert mode to RTT dB reports to commer Distance to comments Clear DX call and grid	ing of QSO Y its after logging	TCP se TCP p Er 2nd U UDP p	erver: 127.0.0 ort: 52001 mable sending t DP server 127 ort: 224	0.1 to TCP server	•	•	decoded messi	ages	
Ugername:	Ugername:	etwork Services		_							
UDP Server: 127.0.0.1	UDP Server: 127.0.0.1	Password: QTH Nickname:									
		UDP Server: UDP Server port number:	2237			Notify	on accepted UDF		indow		
			-	-	via UDP						

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 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.)

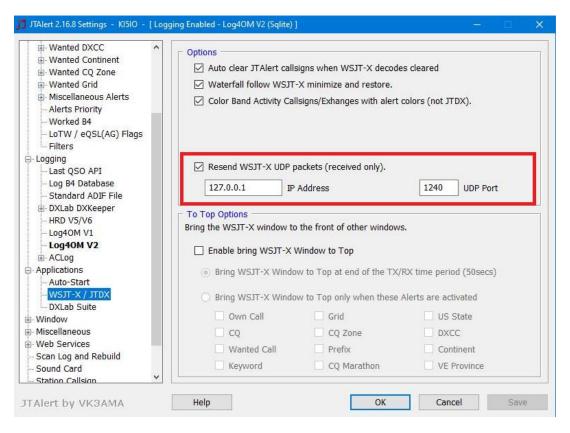
3.Set the ADIF_MESSAGE port in JTAlert to match the port used in Log4OM V2 (Step 2.)

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. chine. Use 12060 as the port unless the receiving application requires a different port. 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 must match each programs settii 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 Station configuration	CAT delay (ms)	0	CAT delay between commands		
Confirmations	Invert SSB side (CW)				
 Database External Services 	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

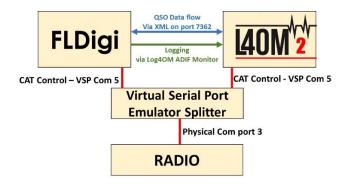
Configuration		
Save config Save and apply Exit		
Program Settings Edit program config Program Scheduler User Configuration Gata Information	Connections UDP Proxy Remote Control UDP INBOUND	UDP OUTBOUND
My References Station configuration	Port Connection name Service type	Port Connection name Service type
Confirmations 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 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 Call Lookup	Rig: Icom IC-7300 (Stable) COM5	Į.
eQSL LoTW	Retries Retry Interval (msec) Baud	i rate: 19200
QSO logging + Modem		topbits 🛉 1
Misc Operator-Station Rig Control	0 0 Poling Interval	(msec) 🕴 250 🚺
firig CAT (rigcat)	©PTT via Hamlib command Mode delay	(msec) (200)
GPIO Hamlib	Audio on Auxiliary Port Sideband: Al	lways USB
Hardware PTT Soundcard	ODTR +12 ORTS +12	CW is LSB mode
Alerts Devices	ORTS/CTS flow control OXON/XOFF flow control	RTTY is USB mode
Right channel Settings 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

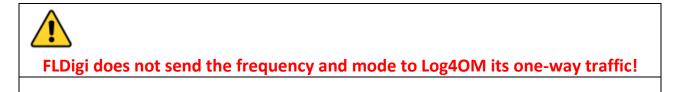
] Configure		 TCP-IP 	sessions				
Colors-Fonts Contests Do Logging MacLooper			Enable KISS for Only one i	or programs that support T programs that supports TC nterface (ARQ/KISS) can b RQ/XML Addr/Port changes	P/UDP and The active at an	NC-2 KISS protocol. ny given time.	
N3FJP logs Call Lookup			ck 🕑 Enable ARQ	Enable KISS			
eQSL 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 TCP-IP sessions		ARQ	127.0.0.1	Addr	7322	Port Default	Restart
NBEMS interface Sweet Spot Rx text capture		XML	127.0.0.1	Addr	7362	Port Default	Restart
PSK reporter DTMF KML	l	firig	127.0.0.1	Addr	12345	Port Default	Reconnect
PSM 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				
 Program Settings Edit program Config 	SIDS ✓ Start service FLDgi instance address FLDgi instance port IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	http://127.0.0.1 7362 ADIF import must be selected from the ADIF import configure 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.



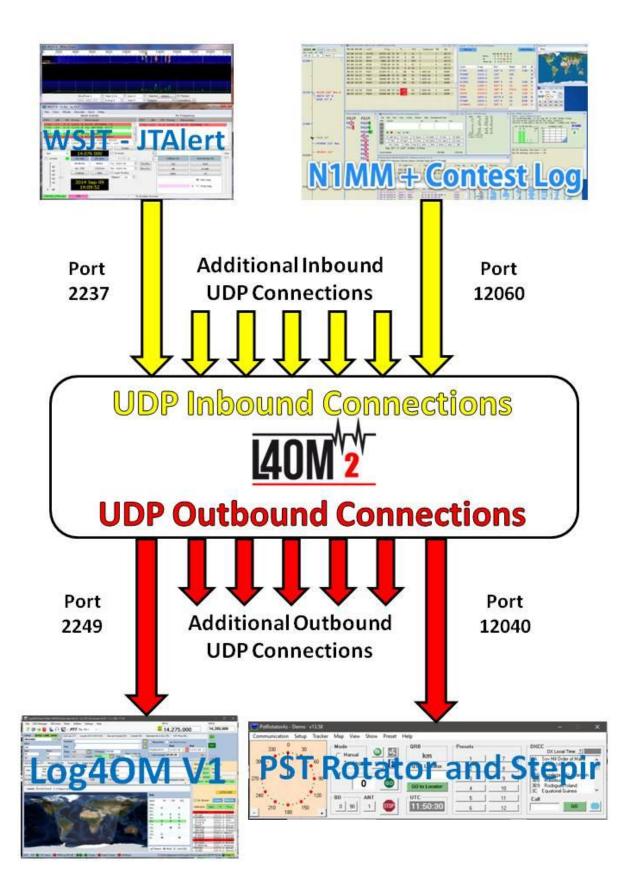
Click on the ADIF icon in the Log4OMSettings/Program configuration/FLdigi tab

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 ADIF files ✓	
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 □ 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.

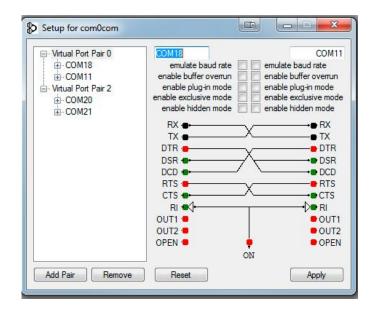
The recommended utility which is free, is COM0COM which is open source and available at: http://sourceforge.net/projects/com0com/files/com0com/2.2.2.0/



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 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			

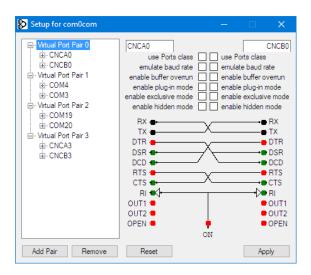
Note: Use Omnirig in Log4OM not Hamlib

Program start sequence must now be first ComOcom then Win4(nn) suite and lastly LOG4OM V2

ANAN-7000DLE SDR (PowerSDR[™] 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):

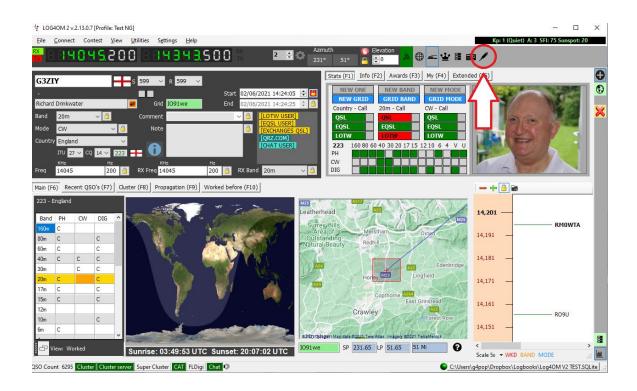
PowerSDR™ OpenHPSDR mRX PS v3.4.9 (3/19/18) G3ZIY	- 🗆 X		
Setup Memory Wave Equalizer XVTRs CWX Diversity Collapse Linearity RA Power RX2 VFO A 5.290 000 VFO Sync Tune 25Hz + 14.100 600 MON TUN 60M Band Segment 3 TX Rx Ant Save Restore TX 20M Beacons	RX1 Meter TX Meter Signal V Fwd Pwr V -100 dBm		
Mox ALEX DUP PS-A Master AF: 30 Mox ALEX 0 ■ 8 -40 -	1 3 5 7 9 -20 40 46 1 3 6 7 9 -20 40 46 1 60 80 60 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 Drive: 50	LSB USB DSB CWL CWU FM AM SAM SPEC 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 able PTT		Jser Interfact		MIDI Wheel 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
 FocusMaste Mode 	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):



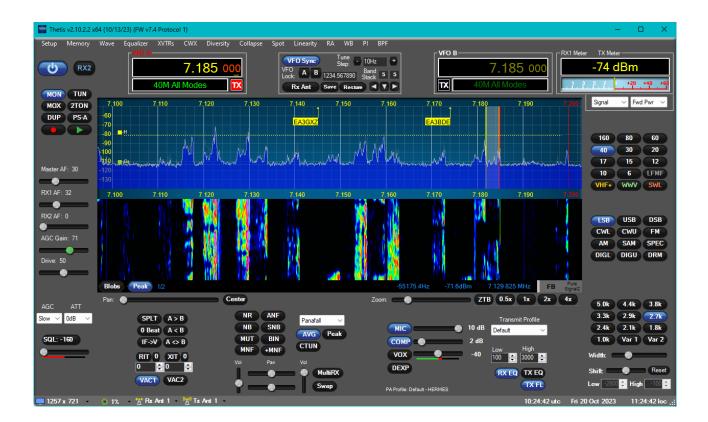
The Omnirig control panel will appear:

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 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 🤟 🧭 👌 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 selected in the Audio Configuration panel We suggest use of the RED button for PTT key for a comfortable use PTT Toggle mode
- Auto Start - Chat	CAT Control colors	Offset
Hardware Configuration Audio devices and voice keyer - CAT interface - CW Keyer interface Software integration Consectione	Main color 2 000 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 ♥ ♥ 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 Confirmations	Username ?	MariaDb Password
Database	Port	Port 3306
- External Services		
 User preferences 	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.

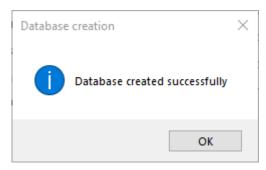
Go to *Menu -> Program Configuration -> User Configuration -> Database* and you should be able to see window like below, with quite self-explanatory fields that needs to be filled in:

Configuration 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 bg4om2 root 3306 Use SSL Use SSL Create databate 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 € 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 ÷ □ 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":

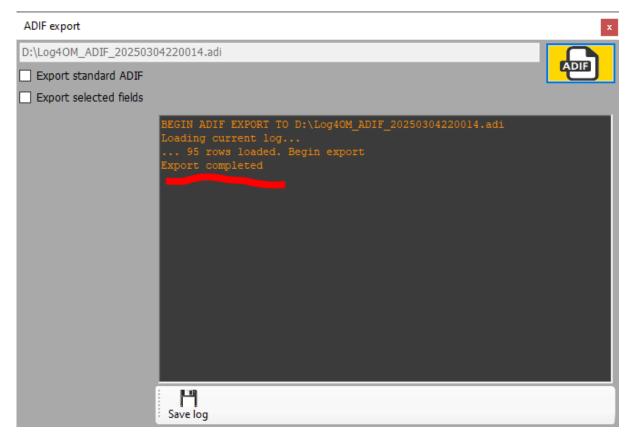
Configuration	
Save control. Save and apply Plit	
Program Settings Edit program config Program Scheduler Performances	Database SQLITE *
E-mail settings Security Settings User Configuration Station Information My References Station configuration	New

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 -Station configuration Usemame log4o -Local weather Database name log4o -Confirmations Password gweet	168.1.1 pm2 pm2User	Deploy MariaDb Dat MySQL Address Database name MariaDb Admin 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 -Station configuration Usemame log4o -Local weather Database name log4o -Confirmations Password gweet			loo4om2
My References Station configuration Local weather Confirmations Password Qwert	im2User		
Local weather 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 ftware Configuration	-		
-Cluster			tabase it will REMOVE ALL DATA
- Cluster Alert		exacting of	Labase is were here over all owner
Info Providers 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 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 O No check O Deep	O Basic		Duplicates	threshold	0	<u>*</u>	sec.
1									
Save log The import may take some time because validating historic DXCC values against pref The data is simultaneously being searched any references found are being automatic	ixe: foi	s, ensuring that IT r any references t	TU and CQ zones a 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 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 The import may take some time because	for	s, ensuring that IT r any references t	TU and CQ zones a 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 SEARCHING FULL AWARDS REFERENCES. End of ADIF import Begin LOG save LOG saved Save completed		• Deep		ОК			
Save log							
The import may take some time because of validating historic DXCC values against prefit The data is simultaneously being searched any references found are being automatica	xes, for	ensuring that any references	ITU and 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 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 '*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.

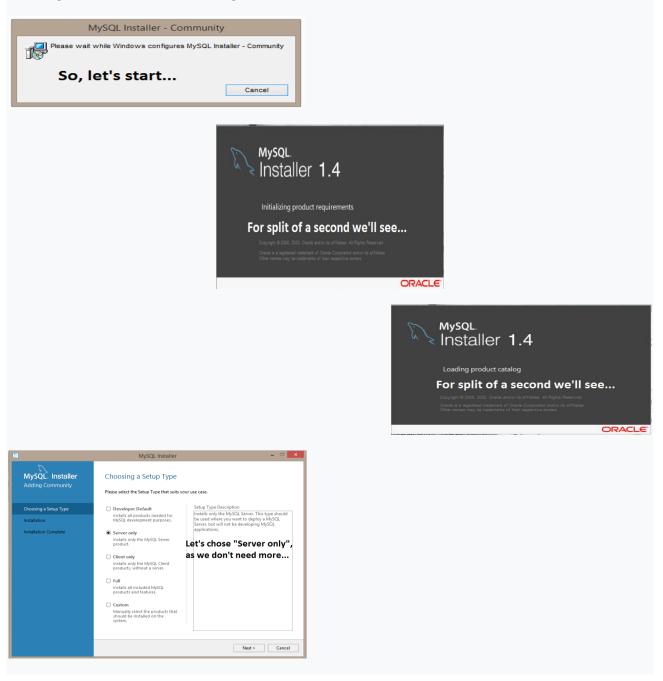
Please note all the above comes with no warranty. Existing SQLite database should not be altered at all during the migration procedure. However it is a good practice to execute proper backup before starting any work (proper meaning as stated in Log4OM User Manual)

Installing MySQL-8.0.20 with Log4OM Version 2 by Tom – SP2L

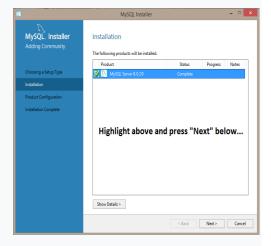
To download the MySQL Installer – Community Oracle Corporation 1.4.33.0 Go to: <u>https://dev.mysql.com/downloads/installer/</u> choose: Windows (x86, 32-bit), MSI Installer 8.0.20 420.6M Download (mysql-installer-community-8.0.20.0.msi)

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 Adding Community	Installation 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	
		< Back	Execute	Cancel	



MySQL Installer Adding Community Cousing Steps Type Wathlation Product Configuration visual for each of the product. Product Configuration You wish to leave this visual will product. Product Configuration Task MySQL Server 8.0.20 Instalation Product Configuration	hout configuring all the
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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...

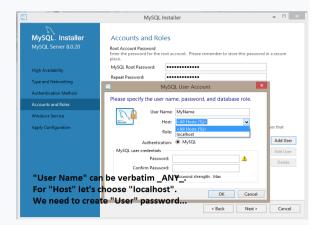
 TAlert users should select
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 Cancel

 egacy Authentication Method.
 Cancel
 Cancel
 Cancel
 Cancel

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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 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"	
			E	11
			< Back Next >	Cancel

	MySQL Installer – 🗆 🗙
MySQL: Installer MySQL Server 8.0.20 High Availability Type and Networking Authentication Method Accounts and Roles Windows Service Apply Configuration	Accounts and Roles Root Account Password Enter the password for the root account. Please remember to store this password in a secure place. MySQL Root Password Repeat Password Password strength: Medlum MySQL User Accounts Create MySQL user accounts for your users and applications. Assign a role to the user that consists of ast of privilese.
	MySQL User Name Host User Role Add User Edit User On this picture we see that Delete password strength is "Medium"
	<pre>vassword scrength is view unit </pre>

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	Create MySQL user accou		nd applications. Assign a rol	e to the user that Add User
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3	MySQL Installer – 🗆 🔤
MySQL. Installer MySQL Server 8.0.20	Accounts and Roles Red Account Passend Enter the password for the root account. Please remember to store this password in a secure 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
	Sack Next > Cancel
	Carcel

	MySQL	Installer		- 🗆 🗙
MySQL. Installer MySQL Server 8.0.20	Accounts and Ro Root Account Password Enter the password for the place.		remember to store this pass	sword in a secure
High Availability	MySQL Root Password:	•••••		
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Apply Configuration	Create MySQL user accou 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

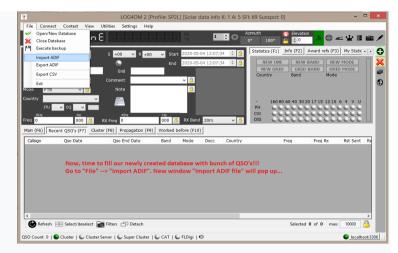
- Adjusting Windows service
- Initializing database (may take a long time)
 Starting the server
- Applying security settings
- Creating user accounts
- Updating the Start menu link

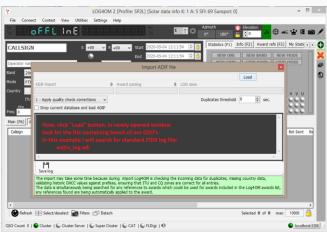
Here, just click "Execute" below and wait patiently untill all items will be ticked...

< Back Execute Cancel

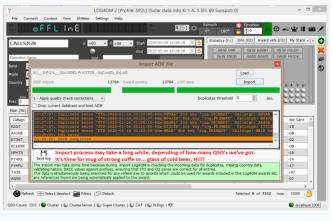
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Þ	OpenVPN Service			% 0	7 MB	0 MB/s	0 Mb/s			
4	Network Time Synchronizer (32			% 0	3 MB	0 MB/s	0 Mb/s			
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in (F6) Re calsign 2GT	He 000 3 RX ecent QSO's (F7) Cluster (Qso Date 2020-05-04 08:08:36	Propagation (F9) Qso End Date 2020-05-04 08:09:44	000 Worked Band 20m	Mode FT8) Dxcc 110	Coun' Hawai	DIG 🕻	Freq 14076,800	Freq Rx 0,000	Rst Sent	
KHZ q 0 iin (F6) Re Callsign 2GT 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 Band 20m	Mode FT8 FT8	Dxcc 110 370	Coun Hawai Oman	DIG C	Freq 14076,800 14076,800	Freq Rx 0,000 0,000	Rst Sent -18 -08	
KHZ q 0 in (F6) Re Calsign 2GT 41KB T3KT	He 000 3 RX ecent QSO's (F7) Cluster (Qso Date 2020-05-04 08:08:36	Propagation (F9) Qso End Date 2020-05-04 08:09:44 2020-05-04 06:57:29	Worked Band 20m	Mode FT8 FT8	Dxcc 110 370	Coun Hawai Oman	DIG C	Freq 14076,800 14076,800 14074,500	Freq Rx 0,000 0,000 0,000	Rst Sen/ -18 -08 -02	
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Q 0 in (F6) Re Calsign 2GT 41KB T3KT C1HXR 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 Band 20m	Mode FT8 FT8	Dxcc 110 370	Courri Hawai Oman Dase	DIG C	Freq 14076,800 14076,800 14074,500 7074,250 14075,650	Freq Rx 0,000 0,000 0,000 0,000 0,000 0,000	Rst Sen/ -18 -08 -02	
1012 1012 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 Band 20m Create	Mode FT8 FT8 ed MySC	Dxcc 110 370 Dxcc	Coun Hawai Oman Dase Brazi	DIG C	Freq 14076,800 14076,800 14074,500 7074,250 14075,650 14080,300	Freq Rx 0,000 0,000 0,000 0,000 0,000 0,000 0,000	Rst Sen -18 -08 -02 -08 -16	
q 0 in (F6) Re Calsign 2GT 41KB T3KT	ter 000 @ excent QSO's (F7) Cluster (QSO Date 2020-05-04 08:08:36 2020-05-04 08:08:36 2020-05-04 08:08:36 Finally, it's time to of filled with a lot of o 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 ur QSO's!!! 2020-05-03 19:30:22	000 Sand Worked Band 20m 20m Create	Mode FT8 FT8 ed MySC) Dxcc 110 370 QL datab	Coun Hawai Oman Dase Brazi	a DIG C	Freq 14076,800 14076,800 14074,500 7074,250 14075,650	Freq Rx 0,000 0,000 0,000 0,000 0,000 0,000	Rst Sen/ -18 -08 -02 -08 -16 -14	
4 0 in (F6) Re alsign 2GT 41KB F3KT C1HDR 44TX 44XX (44YU	te 000 © RX ecent Q50'5 (F7) Ouster (Qs0 Date 2020-05-04 08:08:36 2020-05-04 08:58:16 Finally, it's time to c filled with a lot of o 2020-05-03 19:29:45 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 ur QSO's!!! 2020-05-03 19:30:22 2020-05-03 19:30:25	Vorked Band 20m 20m Create 20m 20m	Mode FT8 FT8 ed MySC FT4 FT8) Dxcc 110 370 QL datab 108 63	Coun Hawai Oman Dase Brazi French Turke	a DIG C	Freq 14076,800 14076,800 14074,500 7074,250 14075,650 14080,300 14076,900	Freq Rx 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000	Rst Sen -18 -08 -02 -08 -16 -14 -17	
q 0 in (F6) Re abign 2GT 41KB F3KT C1H0R 44TX 44XX (49U 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 ur QSO's!!! 2020-05-03 19:30:22 2020-05-03 19:30:25 2020-05-03 19:57:46	000 Worked Band 20m 20m Create 20m 20m 20m 20m	Mode FT8 FT8 FT8 FT8 FT8 FT8 FT4 FT8 FT8 FT8	Dxcc 110 370 L datab 108 63 390	Coun Hawai Oman Dase Brazi French Turke	a DIG C	Freq 14076,800 14076,800 14076,800 7074,500 7074,250 14075,650 14080,300 14076,900 14075,635	Freq Rx 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000	Rst Sen/ -18 -08 -02 -08 -16 -14 -17 +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 E-mail settings	Backup folder	C:\Users\g4pop\AppData\Roaming\Log4OM2\backup\	D 🗙
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 - 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 to * Copy	New item ▼ New folder	Properties	Belect none	
Clipboard	Organise	New	Open	Select	
← → · ↑ → This PC → Packard E EPSON Easy Photo Print -	Bell (C:) > Users > g4poparrl.net :		Log4OMNG → backu	р	
🗦 Dropbox	 Name 	^	Date modified	Туре	Size
 OneDrive g4poparrl.net 	Historic	0_103628_backup.adi		File folder 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

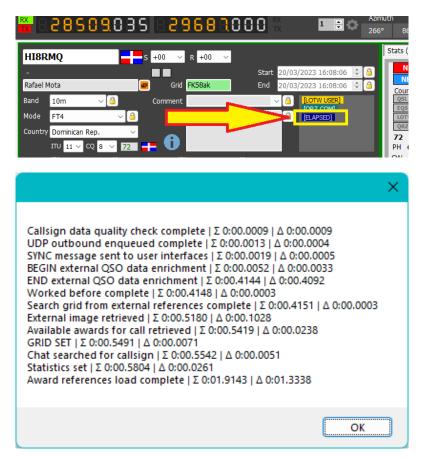
Performance – Self Care – Connection checks

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 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

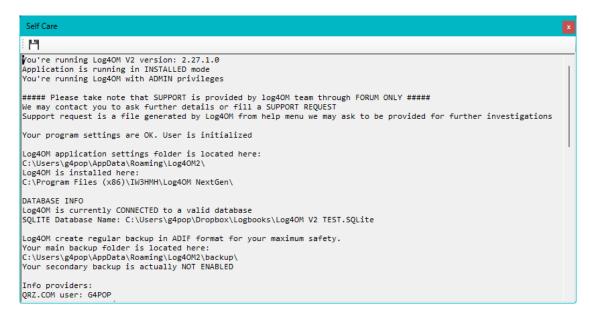
A more detailed report is available by setting the 'Log Level' in the help menu to Debug mode, this causes a message to be displayed in the message window of the main UI which when clicked on displays a report of the various aspects of the Log4OM functions.



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.

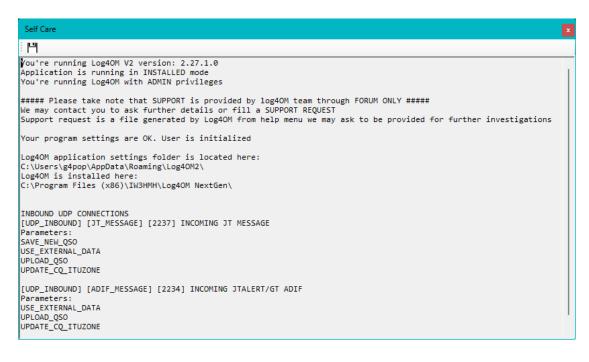
Self-Care Information

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

Copywrite T Genes 2020