FIVE AND NINE PLUS

THE OFFICIAL NEWSLETTER OF THE APPLEDORE AND DISTRICT AMATEUR RADIO CLUB

Club Callsigns: G2FKO and GX2FKO
Web Site : www.adarc.co.uk

CLUB'S OFFICERS

President	Terry Adams	G4CHD		Committee	Dave Cottle	G4XWQ
Chairman	John Lovell	G3JKL			Mike Wogden	G4KXQ
Vice Chairman	Steve Smith	G6SQX			Alan Fisher	2E0EUZ
Secretary	Alan Fisher	2E0EUZ fisheralan.af@gmail.com			Graham Bailey	G1ZTJ
Treasurer	Ray Hunter	M0TLO			Keith Luxton	G0AYM
				QSL Manager	John Lovell	G3JKL
				Web Master	John Lovell	G3JKL
				Exam Secretary	John Lovell	G3JKL
				Editor	Terry Adams	G4CHD terrywho35@gmail.com

April 2019

EDITORIAL

This month's Meeting on **April 15th** is the first in our new Club year and is a talk by yours truly entitled **'Rectangular Loop Antenna with a Twist'** which I hope to illustrate through both a Powerpoint type presentation followed by hopefully a practical demonstration. Hence if any member who cannot make it on the night could listen out on 145.5MHz for G4CHD/P around 8.30 - 8.45pm and give me a call then it would be a great help with the demo.

Last month's meeting was of course our **Club AGM** and I am pleased to report that all your Officers and Committee were re elected as summarised in the report on the March Meeting later in this Newsletter. There was also the presentation of the **Jim McFee Cup** which this year went to **Dave (G0PGK)** for all his hard work, much behind the scenes, in opening up the Clubhouse, providing tea/coffee etc and finally clearing up after most of us have left. Many many thanks once again Dave and delighted the Club could show its appreciation in this way.

Finally may I remind any members who have yet to renew their Club membership that Ray our Treasurer will be at this month's meeting eager to take your money!!

So, the start of another Club year and hope to see many of you at this month's meeting.

Terry (G4CHD)

CLUB MEETINGS

Meetings are held at the Appledore Football Social Club starting at 7.30pm for 8.00pm. Visitors are always welcome.

Apl 15th	Rectangular Loop Antenna with a Twist - design & demo by Terry (G4CHD)
May 20th	Internet Radio by Alan (2E0EUZ)
June 17th	Topic TBA by John (G3JKL)
July 15th	Summer Bring & Buy
Aug 19th	Summer Natter Night
Sept 16th	Club Open Meeting - Topic and speaker TBA
Oct 21st	DMR by Mike (G4KXQ)
Nov 18th	Winter Bring & Buy
Dec 16th	Club Christmas Party
Jan 20th	TBA
Feb 17th	TBA
Mch 23rd	Club AGM
Apl 20th	TBA

For further information, contact the acting Secretary, Alan (2E0EUZ) - see above panel for contact details.

REPORT ON THE MARCH MEETING

Club AGM

As mentioned in the Editorial, all Officers and Committee were re elected as shown below :-

 President
Terry (G4CHD)

 Chairman
John (G3JKL)

 Vice Chairman
Steve (G6SQX)

 Treasurer
Ray (M0TLO)

 Secretary
Darren (M6LQC)

 Committee
Dave (G4XWQ)

 Committee
Mike (G4KXQ)

 Committee
Graham (G1ZTJ)

 Committee
Keith (G0AYM)

Terry (G4CHD) will continue as Newsletter Editor, and John (G3JKL) will continue as QSL Manager/Web Master/Examination Secretary. Mike (G4KXQ) will continue as Foundation/Intermediate examination Assessor/Tutor and Mike (G3PGA) will continue as Foundation/Intermediate examination Assessor. The Club is most fortunate to have such members who give their time willingly to help in this way.

The Jim McFee Cup was awarded to Dave (G0PGK) as previously reported in the Editorial. The Cup was awarded by the Club's President, myself (G4CHD) as shown.

Many thanks to all those Club members who came to the AGM and gave their support to this important event.

Terry (G4CHD)

LOCAL SKEDS

Zepp Net:	**Mon/Tues/Thurs : 145.450MHz - 4pm** **Wed via GB3DN - 4pm**
2m Net:	**Mon/Tues/Wed : 145.450MHz 10.45 - 12.00 noon**
Friday Night 2m Net:	**Friday : 145.450 FM, 8 - 9pm (NEW)**
6m/2m Net:	**Has now moved to 145.475MHz Wednesday, 8 - 9pm until conditions improve on 6m**

HF Net: **Friday at 3pm   7.134 MHz ± qrm**

If conditions poor - 145.450 MHz

70cm Net: **Sunday, via GB3ND, 11am - noon**
Available on Echolink node 221334

Top Band Net: **Sunday 1.860 MHz**
(LSB - 32W pep max)   9.30 - 10.15am
Contact Dave (G4XWQ) for details

LOCAL REPEATERS

70cm Handy Cross Repeater/Echolink (#221334) Gateway (GB3ND)
User: Listen 433.35 MHz– Transmit 434.95 MHz
Access 1750 Hz Tone (Timeout 4.25 mins)/ 77 Hz CTCSS
Repeater keeper is Jeff (G4SOF**)**

2m Stibb Cross Repeater (GB3DN)
http://www.g0rql.co.uk/gb3dn.htm
User: Listen 145.6375 MHz - Transmit 145.0375 MHz.
Access 1750 Hz Tone or 77 Hz CTCSS
Repeater keeper is Tony (G1BHM)

70cm Twitchen (nr South Molton) Analogue Repeater (GB3SF)
User: Listen 430.9375 MHz - Transmit 438.5375 MHz
Access 77Hz CTCSS
Repeater keeper is Steve (G6SQX)

APRS Digipeater (MB7VE)
Frequency 144.800 MHz
Repeater keeper is Steve (G6SQX)

SUDOKU PUZZLE

The aim is to enter a number into each cell so that **any column, or any row, or any block of cells contains all numbers from 1 to 9**   Terry (G4CHD

							4	1
	2				1			6
		6	2	7				
	6			5				7
5		8				1		3
3			4				2	
			1	3	5			
2			8					4
	5		4					

CROSSWORD

Many thanks to Stuart (M1FWD) for this month's Crossword.
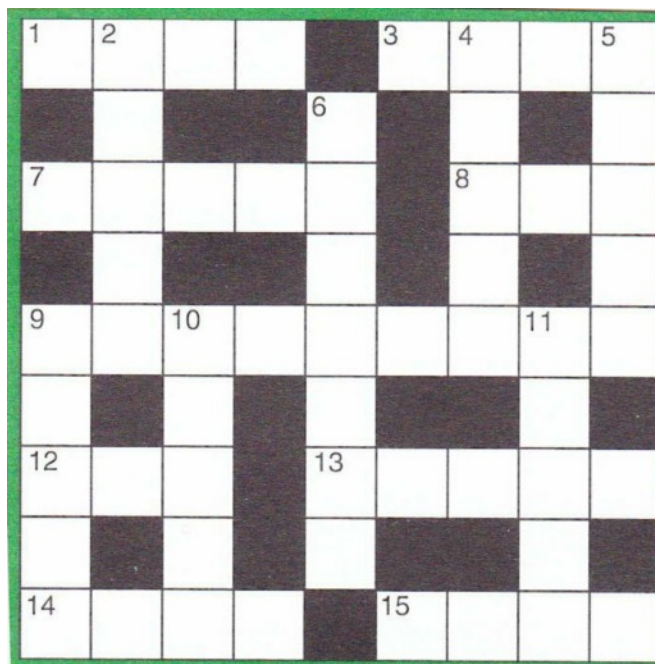The answers are in next month's Newsletter.
Good luck !

CLUES ACROSS

1) Adhesive (4)
3) A range of radio frequencies or wavelengths in a spectrum (4)
7) Large, herbivorous, semiaquatic rodent (5)
8) Spirit distilled from molasses (3)
9) Fox Tango/X-Ray (FT/X) islands (9)
12) Screws on the end of a bolt (3)
13) A thermionic valve having two electrodes (5)
14) In addition (4)
15) Diesel oil for road vehicles (4)

CLUES DOWN

2) Sierra ?, Nine Lima (9L) land (5)
4) The fourth month (5)
5) Matt ?, American actor, co-star of the film Good Will Hunting (1997) (5)
6) Nine Uniform (9U) land (7)
9) Five Zulu (5Z) land (5)
10) Baud ? are components which determine the speed of communication over a data channel (5)
11) Species of duck, Somateria mollissima (5)

Last month's answers :-

ANSWERS ACROSS:
1) Igor 3) volt 7) wattmeter 8) Taw 10) nil 12) reactance 13) Suez 14) nano

ANSWERS DOWN:
2) Ghana 4) often 5) Tyrol 6) emanate 8) Turks 9) whale 11) Incan

ANAGRAM PUZZLE BY STUART (M1FWD)

In my Movie History Reference Handbook there are endless lists of bit-part film actors and actresses from the past hundred years or so, and I noticed something unusual about some of them: their names can all be rearranged into radio terms.
Bit of fun for a lazy Easter afternoon?

Here are the minor celebrities from days gone by :-

1. Chip Monroe
2. Ben Addis
3. Carver Stein
4. Terrence Fine
5. Ida Moulton
6. Cicely Terti
7. Cassie Nert
8. Pam Denice
9. Sophie Nero
10. Stan Merritt
11. Eric Vere
12. Duncan Tice

Answers are given on the last page of this Newsletter.
Good luck!

USING LOG4OM FOR HOME AND PORTABLE WORKING
by Terry (G4CHD)

I started writing this article on the following pages with the intention of it being short and to the point but like most things it got sort of longer! Hope it might be of interest to some members

Enjoy the Newsletter   Terry (G4CHD)

<h1 style="text-align:center">SETTING UP LOG4OM
FOR BOTH HOME AND PORTABLE/MOBILE LOGGING</h1>

OVERALL PLAN

My plan was to have electronic logging for both my home, portable and mobile stations. The definition of each is quite arbitrary (Ofcom doesn't even stipulate that a log MUST be kept).

My home station working is the use of either a FTDX3000 from within the house or a FT 857 from within the back garden feeding any home station antenna or an IPro Traveller portable antenna erected in the back garden.

Portable working /P is the use of a FT 857 and IPro Traveller at any location away from the home QTH - eg Northam Burrows.

Mobile working /M is the use of a FT 857 within the car feeding an Outbacker HF mobile multiband vertical antenna mag mounted on the car roof. However, operation is with the car parked but the use of the /M suffix is in my personal opinion used to indicate the nature of the station - ie that it is capable of being used mobile. I am sure that there are many who would question this use of the /M suffix but as I said earlier, this is my personal choice.

The choice of Log4OM had really already been taken as it interfaces with OmniRig (see later) to enable CAT operation with my home station FTDX3000. Omnrig enables selection of one of two rigs to connect to various compatible programs including Log4OM, MixW, PSK Express, WSJT-X, and SDRUno etc.

It was therefore decided to install Log4OM on both my home station Computer (a tower) and my Laptop which would be used mostly in /P and /M situations. It was thus necessary to find a way to synchronise Log4OM generated logs on both computers.
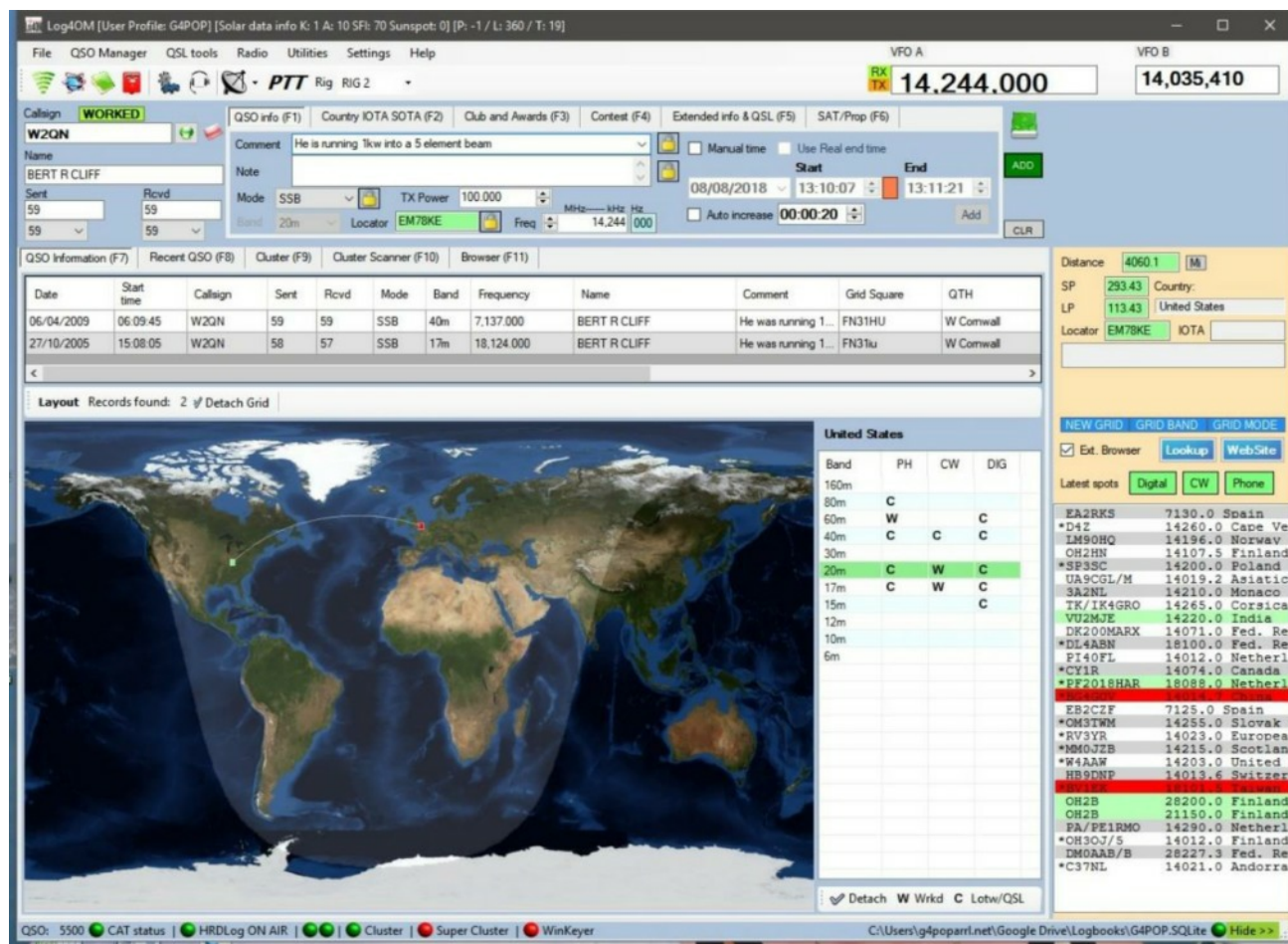
INSTALLING AND INITIAL SETTING UP OF LOG4OM

Log4OM is free to download and can be found at www.log4om.com. As of March 2019 the latest version is 1.36.0 and can be downloaded by selecting the download tab and then clicking on the green download button for Log4OM 1.36.0 (NOT the portable version) and select to save the file which is a zip file from which log4OM_1_36_0.exe is extracted. Run this installation program (Windows may refuse on the grounds that it is a relatively little used program but I have found it safe to override this) and when offered the choice, include Omnirig and the English Manual in the installation.

When Log4OM is first run, you are required to enter your details into a Configuration (Profile) which by default is described as 'NEW CONFIGURATION' (which can be edited). In my case this was my Home Station Profile for home working using the FTDX3000 and home station antenna and hence its description was edited to 'Home Station - FTDX3000 - End Fed Wire'.

Under the **station info tab**, this includes the station/operator/and owner callsigns are entered (eg if GW1ABC is operating the station at the QTH of G1ABC using the special callsign GB100ABC, then the Owner is G1ABC, the Operator is GW1ABC, and the Station callsign is that used on air ie GB100ABC), plus your locator, Country, details of the owner's address, rig, power and antenna. Under the **Settings 1 tab** external sources eg QRZ.COM can be selected as well as a Backup Folder and Secondary Folder. The **Settings 2 tab** enables you can select whether to 'Show distances in miles' and 'SET start time when leaving the CALLSIGN field'. Under the **CAT & Cluster tab**, select OMNIRig as the CAT software. Under the **QSL and Labels tab** choose your preferred QSL settings. Under the **External Logs tab** enter eg your EQSL info (QTH Nickname is HomeQTH). Under the **Database tab** select Use SQLite. Finally under the **Audio config tab** select as appropriate.

Click to Save Configuration and the main screen display will be shown similar to the following :-

This article is not intended to be a full description of Log4OM - for a 2019 version of the Manual in English go to http://www.log4om.com/resources/

I decided to have **several Profiles** :-

Home Station - FTDX3000 and End Fed Wire

Home Station - FT 857 and IPro Traveller in garden

Portable Station - FT 857 and IPro Traveller

Mobile Station - FT 857 and Mag mount Outbacker

Since these different Profiles have much in common, the easiest way to set up each Profile is :-

Click on the Settings icon (cog wheels - 5th icon from left) and in the new window, the previously used Configuration (Profile) will be selected.

Click on the 'Clone Configuration' button and a new Configuration will be created based on the previously used one and identified by (cloned) appearing at the end of its title. You can now edit this Configuration accordingly including its description and when done, click on Save Configuration.

Repeat for the other Profiles by selecting the cloned configuration as the starting point. Finally, this cloned Configuration can be deleted.

Note that to adopt any Profile, select it from the drop down menu, make it Active and Save Configuration and then quit and restart Log4OM and your chosen Profile will now be the one in use as shown at the very top left of the main screen display.

Profiles simply provide operator and station details.

It is therefore possible to have as many Configurations (Profiles) as you have combinations of rig/antenna/power/location. However for eg Portable working an alternate strategy is to have only one Configuration (Profile) and simply edit this Configuration as appropriate before starting to do any logging. eg edit the location or antenna details, save, exit and reload Log4OM and start logging.

What is also required is a **Database (Log)** to record QSO details. You could opt to have just one Log or as I chose, 3 Logs - Home Station, Portable, and Mobile. This simulates what I would have done with paper log books ie have one for each. To create a Database (Log) click on File/New Database and having given it a suitable file name, navigate to a suitable Folder to store your Log. The selected Log location is displayed in the bottom right hand corner of the screen.

As I needed to have some form of synchronisation between Logs on my Home and Laptop computers, I installed Dropbox on both computers using the same account and the Database (Log) was put in the Dropbox folder eg C:\Users\Terry\Dropbox. You could also use Google Drive etc.

I thus ended up with 3 Databases (Logs) namely :- G4CHD Home, G4CHD Portable, and G4CHD Mobile. The Database to be used is selected using File/Open Database.

Therefore, if using either of the Home Station Configurations, I used the G4CHD Home Database. Note that it is possible to select a different Database (Log) to do editing or EQSL upload/downloads but not logging. For the Database to become active for recording QSOs, Log4OM needs to be exited and reloaded.

This concludes the initial setting up of Log4OM - sounds long winded but you only do it once.

CONNECT HOME COMPUTER/LAPTOP AND LOG4OM USING CAT

Depending upon your rig, there are various ways to do this.

On the FT 857 there is a rear CAT/Linear 8 pin DIN connector which uses 5V TTL serial signals. To connect this to the Computer's USB socket requires a special cable which contains a UART to USB Bridge IC (eg FTDI chip) which converts the Protocol to the USB standard. Alternatively, an Interface Box eg Digimaster etc can be used. The FTDX3000 on the other hand has the UART to USB chip fitted within the transceiver and hence a simple straight USB cable is all that is needed. There may be the need to first install driver software before connecting the cable etc - refer to your chosen interface method.

For the FT 857 I used a special cable with the chip fitted. Once the rig and computer are connected, find which COM Port is generated (Right click on Windows Start button, select Device Manager, and then Ports (COM and LPT).

In Log4OM, click on the CAT Connection icon (looks like headphones, 6th from left) and the OmniRig Settings window will open. Select your rig from the drop down list and enter the COM Port details (Baud Rate will have been selected within your rig's Menu system). If all is well, the CAT Status button (bottom left of main screen) should turn green and the rig frequency will appear at the top right of the main screen (see image on page 2)

SYSTEM IN USE

Once the above has been completed you are ready to check the system. Check that CAT is correctly established (ie bottom CAT Status green as mentioned above) and manually change the Band and frequency of the rig and check that the top right frequency display in Log4OM reflects your changes.

Select your Configuration (Profile) and Database (Log) as appropriate and enter a test callsign (eg yours) together with imaginary reports. If you are connected with WiFi and have selected to use eg QRZ.COM then the name and QTH of the entered callsign should automatically be entered. Make a written note of these QSO details and click on the green ADD button (or press Enter on keyboard). Select the Recent QSOs tab and this QSO should appear correctly at the top. Switch to your other computer and load up Log4OM and check that this QSO has appeared in the Recent QSOs list ie synchronisation has taken place (may be some delay). Once this has been confirmed this QSO can be deleted from either computer by either clicking on the Clear button or Esc on the keyboard.
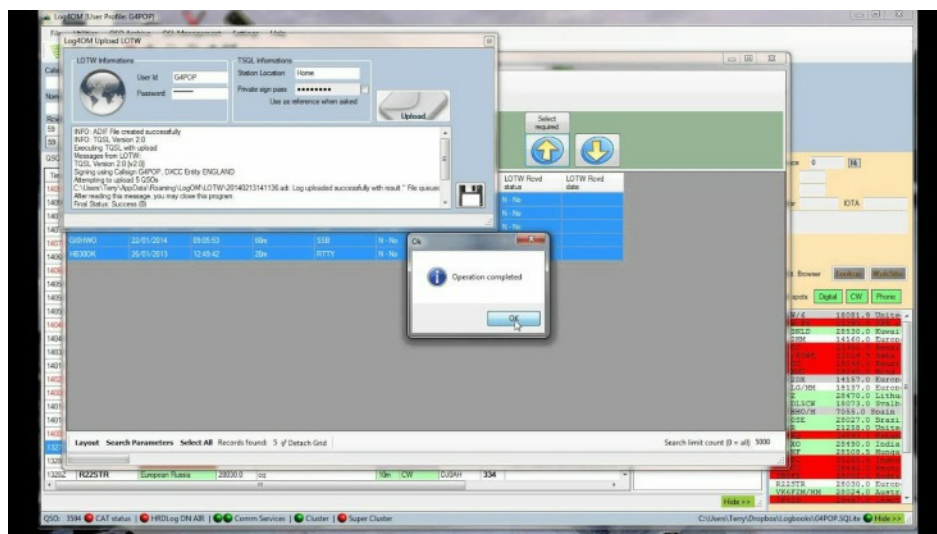
(You may prefer this test to be made using an actual QSO since your system may also automatically upload this test QSO to eg EQSL)

Assuming that the test proved successful, you are now ready to use the system to log actual QSOs.

Select the Configuration (Profile) that is applicable (or edit it as necessary as mentioned earlier) and make it Active and Click Save Configuration and then select the relevant Database (Log). Exit and reload Log4OM and you are ready to start logging your QSOs.
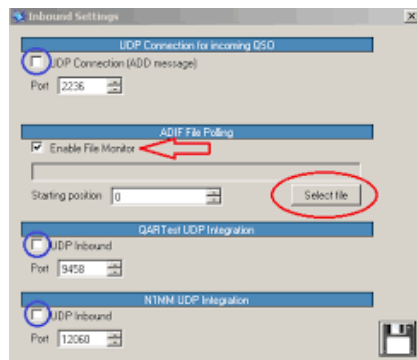
This article has only just scratched the surface of what Log4OM can do. I personally found the following very useful :-

EQSLing - It is possible to automatically send an EQSL once a QSO is entered into the log (assuming you have internet access). Assuming that your EQSL details have been entered under Settings/External Logs, simply tick the 'Automatically upload on new QSO' box and save. To upload/download EQSLs, click the QSL Management icon (4th from left on menu bar - red postbox) and eg for EQSLs, select the EQSL tab. To upload any QSOs (perhaps made before automatic upload was activated) click the Search button and highlight (cntl left click) QSOs to upload and then click upward arrow (blue background) and assuming your EQSL details are already entered, click on Upload button and when done close window. To download EQSLs, click the downward arrow (blue background) and adjust dates if required, tick the box to download images if required, and then click the

Download button. When finished, close windows to return to main screen. Note - EQSL images are stored in the folder specified in Settings/Settings 1 under Backup Folder assuming you didn't leave this blank.

Cluster - to display (right hand lower corner) click on the Cluster icon (1st from left on top menu - green fan) and then select server and finally click on Connect and then close window.
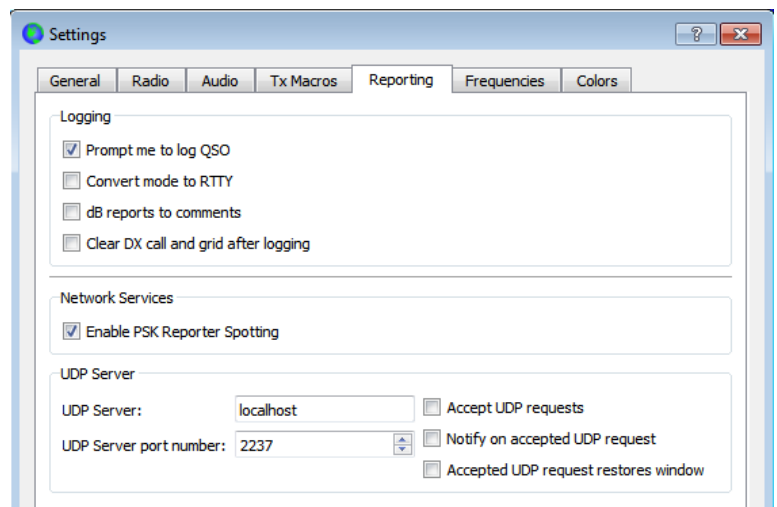
FT8 logging - if you use WSJT-X then QSOs can be logged directly into Log4OM. In Log4OM under Settings/Services click on the green Start button to start Communicator. This is now running in the background as shown by its icon appearing in the bottom Windows bar. Now click on this icon to open the Communicator window and click the Auto Start box and click on the red Stop button. Now in this window click on Settings tab/Inbound/Inbound Settings and make a note of the UDP Connection (ADD message) details which should be ticked. Now tick the Enable File Monitor box, click the select file box, locate and click the appropriate Log4OM log file, and finally enter the next QSO number (ie one more than the total number of QSOs already in the log) and save. Close these windows.

In WSJT-X, under File/Settings/Radio tab ensure that CAT uses Omnirig, and then under the Reporting tab, check that the Server and port details are those you noted in Log4OM. Now saving a QSO in WSJT-X will also save it to Log4OM. Note that it is possible to also activate PSK Reporter.

Hope this article has given you food for thought - good luck!   Terry (G4CHD)