



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
Chairman John Lovell G3JKL
Vice Chairman Steve Smith G6SQX
Secretary Alan Fisher 2E0EUZ secretary@adarc.co.uk
Treasurer Ray Hunter M0TLO

Committee Dave Cottle G4XWQ
Mike Wogden G4KXQ
Graham Bailey G1ZTJ
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

May 2020

EDITORIAL

As many of you will aware, the Club has been trying to find different ways to keep members involved and in contact despite this present dreadful crisis. The April Meeting was held virtually via GB3DN with a very good involvement by members. It is intended to repeat this format this month on **Monday May 18th at 7.30pm being the 3rd Monday in the month via GB3DN.** Another first for the Club was an evening virtual Talk by yours truly on Thursday April 30th using **Zoom**. The subject was **'Icom IC-7300 System'** and will be delivered in three 30 mins parts. Nearly 20 members joined the 'meeting' and the initial response appears to have been positive. **Parts 2 and 3** will take place as shown in the Club Meetings list shown opposite. An accompanying article giving fuller setup details is included at the end of this Newsletter. I'm also delighted to announce that **Mike (G4KXQ)** will be giving a Zoom Talk on the **Mini VNA on June 8th** which knowing Mike's attention to detail and in depth preparation will be one certainly worth watching. The Committee have therefore decided to take out a monthly renewable account with Zoom which removes the tight 40 mins deadline per meeting and this has now been done. Once our conventional Meetings recommence then we can terminate the account. With this in place, our **postponed AGM will take place via Zoom on June 22nd** and your Committee wants to establish the best and easiest way this can be done. Comments please to any Committee member.



Finally a plea from your Treasurer, Ray - please can members who have yet to **pay this year's subscription (£13)** get in touch with Ray - cheque/direct transfer accepted (please add your name/callsign and 2020). Keep safe and keep healthy

Terry (G4CHD)

CLUB MEETINGS

Due to the present Covid 19 pandemic, ALL meetings scheduled to be held at the Appledore Football Social Club have been CANCELLED until further notice

Until such a time that the above Meetings are reinstated a programme of 'virtual meetings' has been arranged :-

Date	Start Time	Meeting
May 11 th	7.30 pm	Part 2 - IC-7300 System via Zoom by Terry (G4CHD) then qsy GB3DN
May 18 th	7.30 pm	Virtual Club Night via GB3DN
May 25 th	7.30 pm	Part 3 - IC-7300 System via Zoom by Terry (G4CHD) then qsy GB3DN
June 8 th	7.30 pm	Mini VNA Zoom Talk by Mike (G4KXQ)
June 15 th		TBA
June 22 nd	7.30 pm	Virtual AGM via Zoom

It is hoped to add further virtual Meetings so if anyone wants to give a Talk, please contact a Committee member.

LOCAL NETS

Zepp FM Net: Mon/Tues/Thurs/Fri :
145.450MHz - 4pm - 5pm
Wed via GB3DN - 4pm - 5pm

2m Elevenes FM Net: Mon/Tues/Wed/Thurs/Fri :
11 - 12.00 noon
Mon/Tues/Thurs 145.475MHz
Wed via GB3DN
Fri start 145.475MHz & then
qsy to another band

Friday Night 2m Net: Friday : 145.450 FM, 8 - 9pm

2m SSB Nets: Wed: 8 - 9pm 144.260MHz
USB SSB
Sun: approx 10.30am (follows
Top Band Net) 144.260MHz
USB SSB (Vertical polarised)

Top Band Net: Sunday 1.860 Mhz
9.30 - 10.15am
(LSB - 32W pep max)

LOCAL REPEATERS

2m Stibb Cross Repeater (GB3DN)

<http://www.g0rgl.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)

CROSSWORD

Many thanks to Stuart (M1FWD) for this month's Crossword.

The answers are in next month's Newsletter. Good luck !

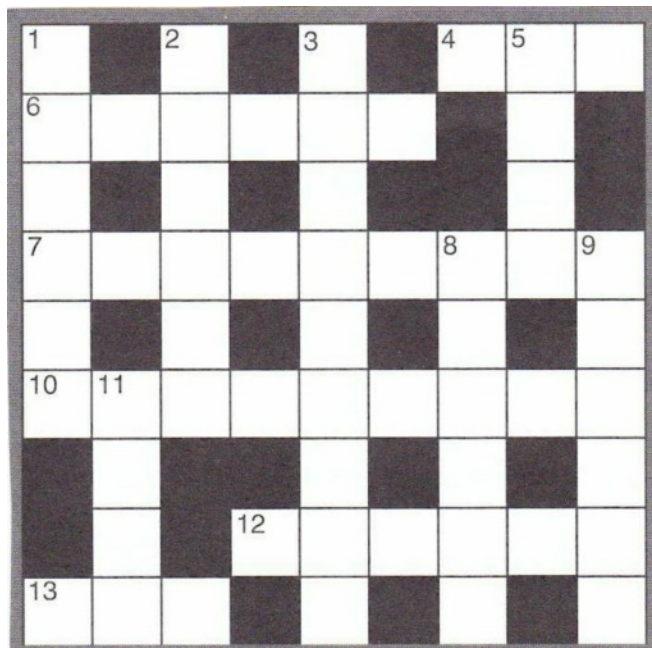


CLUES ACROSS

- 4) The point beyond which a thing does not continue (3)
- 6) Female bovine animal (6)
- 7) An oral examination of an applicant for employment (9)
- 10) Foxtrot Tango/X-Ray (FT/X) islands (9)
- 12) ? Bridge, Staffordshire village south-east of Stoke-on-Trent (6)
- 13) A lyric poem (3)

CLUES DOWN

- 1) Make or become smaller (6)
- 2) A device for suppressing electrical or sound waves of frequencies not required (6)
- 3) In an anxious manner; apprehensively (9)
- 5) Number indicating a very good received signal strength in radio communication (4)
- 8) Small arms of the sea, a lake or a river (6)
- 9) Felix ? (1902-1988), designer of the rotary engine (6)
- 11) ? Blyton (1897-1968), children's writer (4)



Last month's answers :-

ANSWERS ACROSS: 1) evil 4) Yagi 7) broadband
8) Asda 10) coda 12) Beverages 13) yard 14) odds

ANSWERS DOWN: 2) virus 3) llama 5) Alamo 6) India
8) Abbey 9) Dover 10) Ciano 11) dread

IC-7300 SYSTEM ZOOM PRESENTATION ACCOMPANYING ARTICLE

For any members interested in a more detailed description of how to install and setup various software covered

in the Talk, I have written this accompanying article which I hope members will find useful. The article can be found at the end of this Newsletter.

If any errors are found I would be most appreciative if you could send me an email.



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**

2			3		4			
		8			9			6
	7			6				
	6	3	8		2			
	8					1		
			4	3		5		8
					3	7		
		7		1				2
			5	4			9	

Terry (G4CHD)

So that's it for this month

Stay safe and stay healthy

Terry (G4CHD)

ICOM IC-7300 SYSTEM

by Terry (G4CHD)

IC-7300 DRIVER INSTALLATION AND MENU SETUP

In order to enable the Icom IC-7300 to communicate with a computer via its USB lead (type B to type A) it is necessary to first install a suitable **Driver** which can be found either on the Icom website (select v1.30 USB Driver):-

https://www.icomjapan.com/support/firmware_driver/?keyword=IC-7300&open=tab2&type=5#download_result

or the **Silicon Labs website** :-

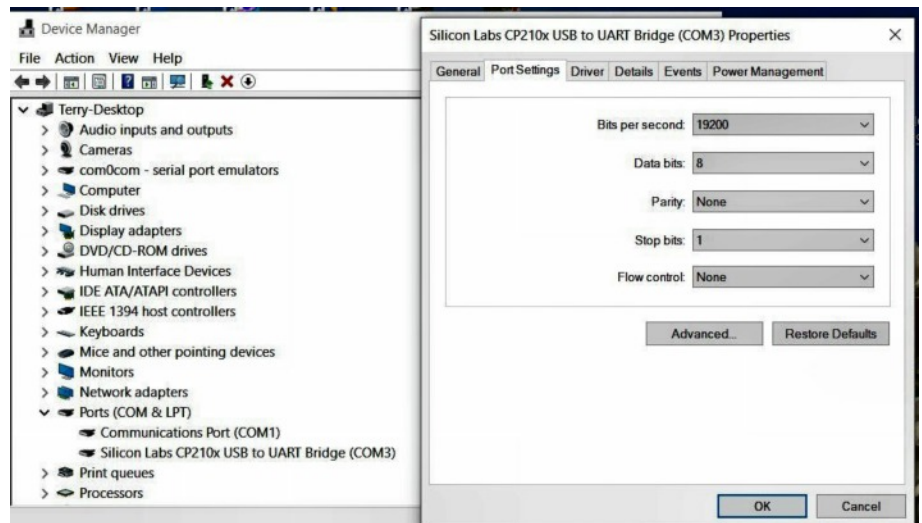
https://www.rtsystemsinc.com/kb_results.asp?ID=302

I tried both and got the same result. In both cases it is **essential** to have the USB cable disconnected from the computer until prompted to connect it during the installation process.

The installation can be confirmed by connecting the IC-7300 and computer via the USB lead, turn on the IC-7300 and go the **Windows Device Manager** (right click on the Windows icon extreme bottom LHS of screen - normally used to turn off computer with a left click - and select Device manager from list. Select Ports (COM & LPT) and there should be a Silicon Labs CP210x Driver. **Note the COM number allotted** which will be needed later. Now double left click on this Silicon Labs entry to bring up its **Properties Window** which should show the device is working properly. Select the **Port Settings Tab** and enter the details as shown opposite :-

and click **OK**

In addition to the virtual COM port two USB Audio Codecs are also installed and can be seen under 'Audio Inputs & Outputs' in Device Manager - one labelled Microphones and the other Speakers.

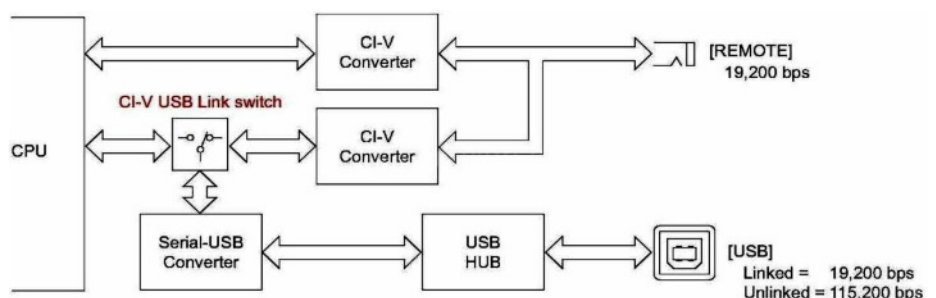


Finally it is necessary to change two settings in the **IC-7300 Menu** system. As shown in the diagram below, to use the type B USB socket on the rear of the IC-7300 the (REMOTE) socket needs to be Unlinked and then the Baud Rate set to the same value used previously as described above in Windows Device Manager.

To enter the IC-7300 menu system, press the **MENU** button - left of five buttons below screen - followed by **SET**, then **Connectors**, then **CI-V**, and scroll to **CI-V USB Port** and select 'Unlink from [REMOTE]'.

Then just below is the **CI-V USB Baud Rate** which should be set to eg 19,200 bps (as selected in Device Manager). Press **MENU** button again to return to the main display.

The IC-7300 is now all set up to communicate with the Computer.



OMNIRIG INSTALLATION

The virtual COM port connected to the IC-7300 will need to be 'shared' with several programs including SDRUno (see below) and later a Logger program.

To achieve this 'sharing' the free program Omnirig is required. This can either be downloaded from

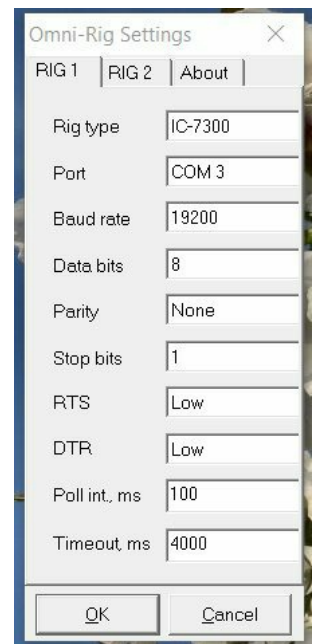
<http://dxatlas.com/Download.asp>

Or (preferred) - since the Log4OM v2 logger software is also required, it can be downloaded together with Omnirig from :-

<https://www.log4om.com/download/>

and tick the option to include Omnirig in the installation.

Run Omnirig and enter values as shown opposite using the COM Port you noted in Device Manager for Silicon Labs and the Baud Rate adopted in both the IC-7300 and Device Manager.



RSP1A DRIVER INSTALLATION AND SDRUno SETUP

Assuming that the IC-7300 has been modified by fitting the **PTRX-7300** as described in **Part 1 of the Zoom Presentation**, then the RX socket flying lead can be connected to the SMA socket on the **RSP1A**.

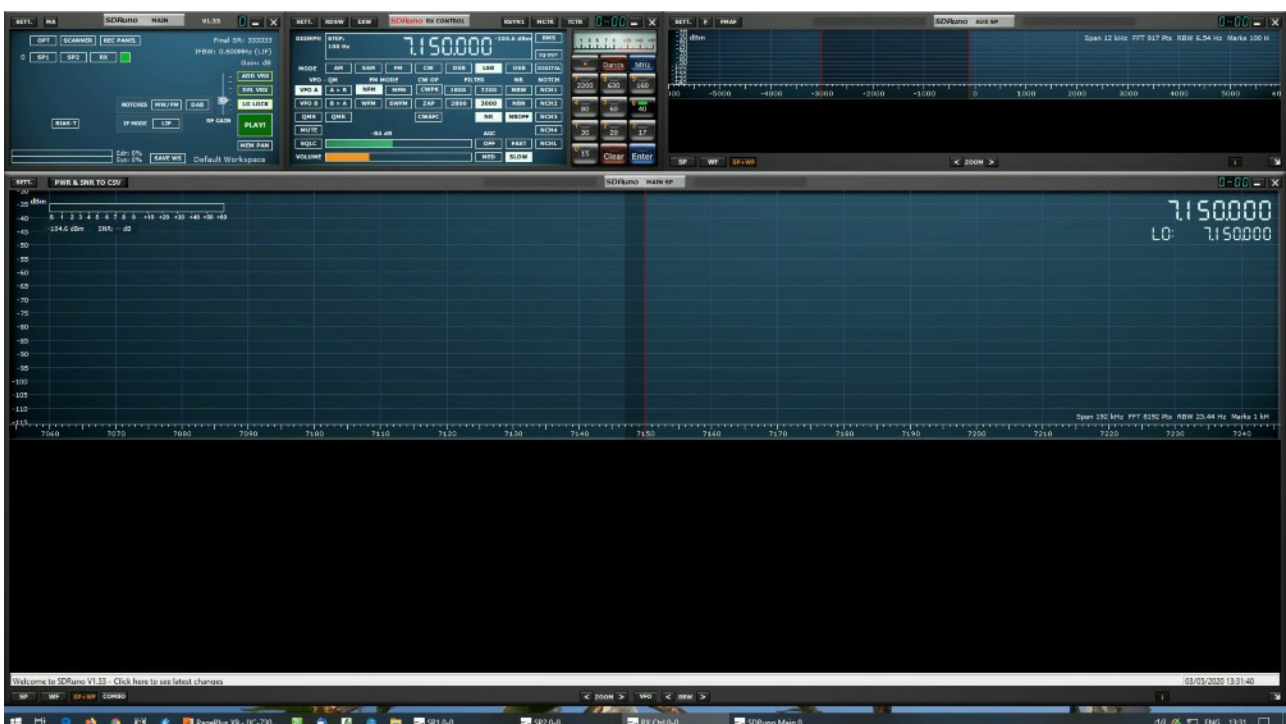
Before the RSP1A can be connected to the Computer, a **Driver** together with **SDRUno** software needs to be installed. Go to the SDRUno website at :-

<https://www.sdrplay.com/downloads/>

and click on the '**Start Here**' Tab on the upper blue part of the screen and follow the instructions. When asked for the RSP1A serial number, this can be found on the underside of the RSP1A. Only connect the USB lead to the computer when prompted to do so.

Now connect the IC-7300 and RSP1A together and to the computer via ferrite protected type B to type A USB leads.

Start SDRUno and the following screen for SDRUno should appear :-



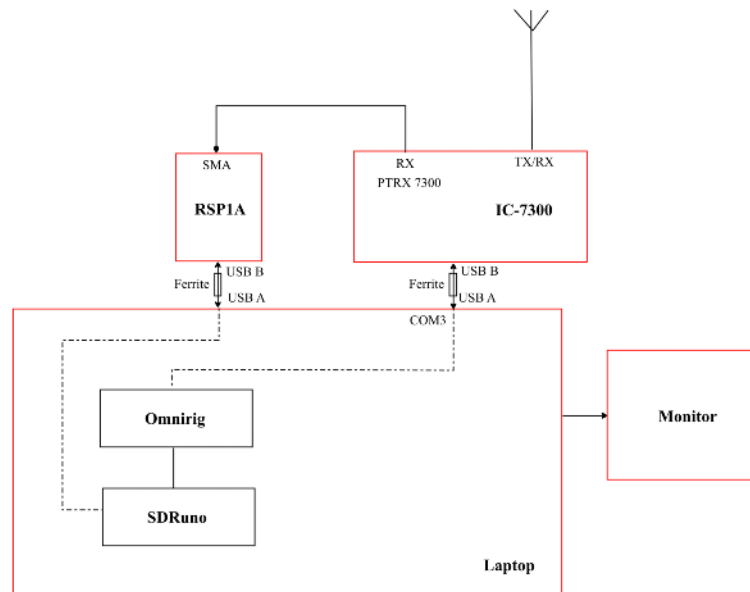
It is necessary to make a couple of entries before SDRuno connects to both the RSP1A and the IC-7300 via Omnirig.

In the top right window (Main) click on OPT button and in drop down list select 'Select Input' and ensure SDRPlay RSP is ticked. Now go across to the RX Control window (to left of Main window) and click on RSYN1 at top of window - this will select Omnirig to connect to the IC-7300 via the COM Port.

Finally, in the Main window, click on green Play button and everything should now be working.

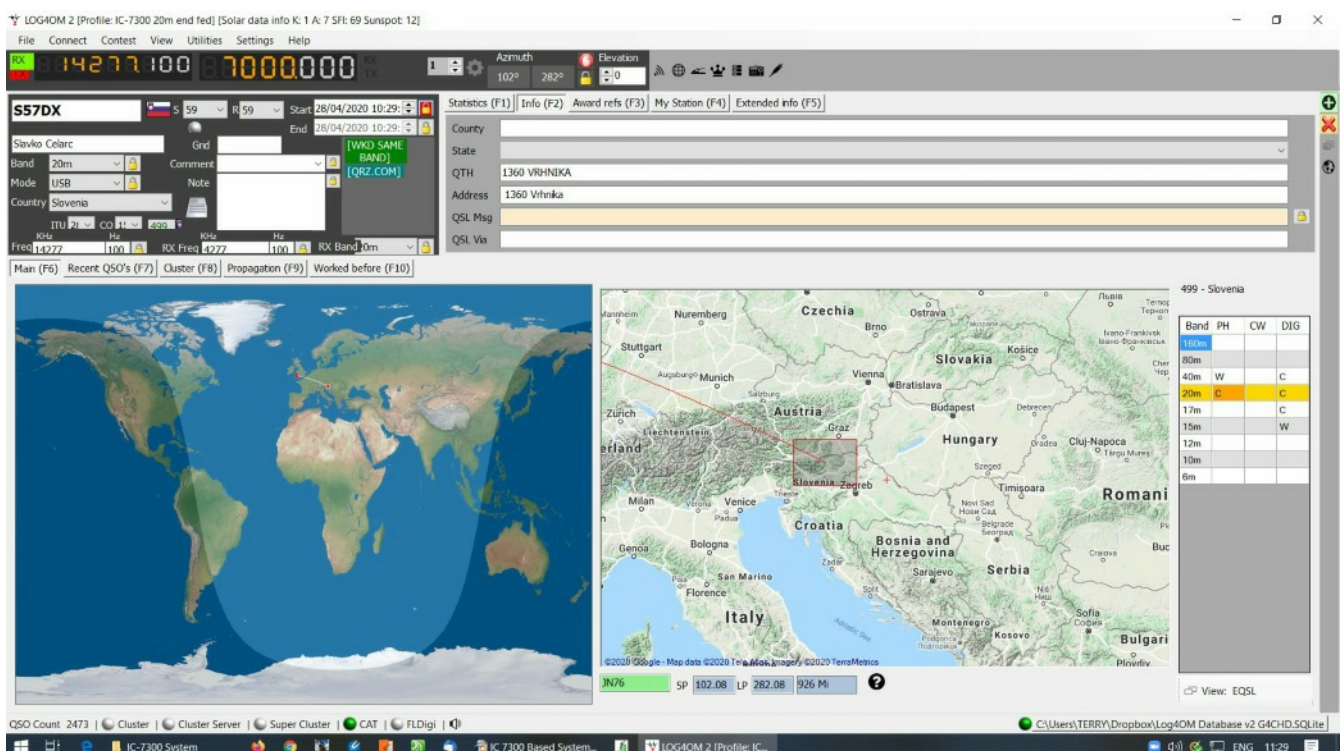
Check that changes to the IC-7300 frequency are mirrored in SDRuno. Similarly, changing Bands in SDRuno are mirrored in the IC-7300. Finally, clicking within the Spectrum Display should also change frequency etc.

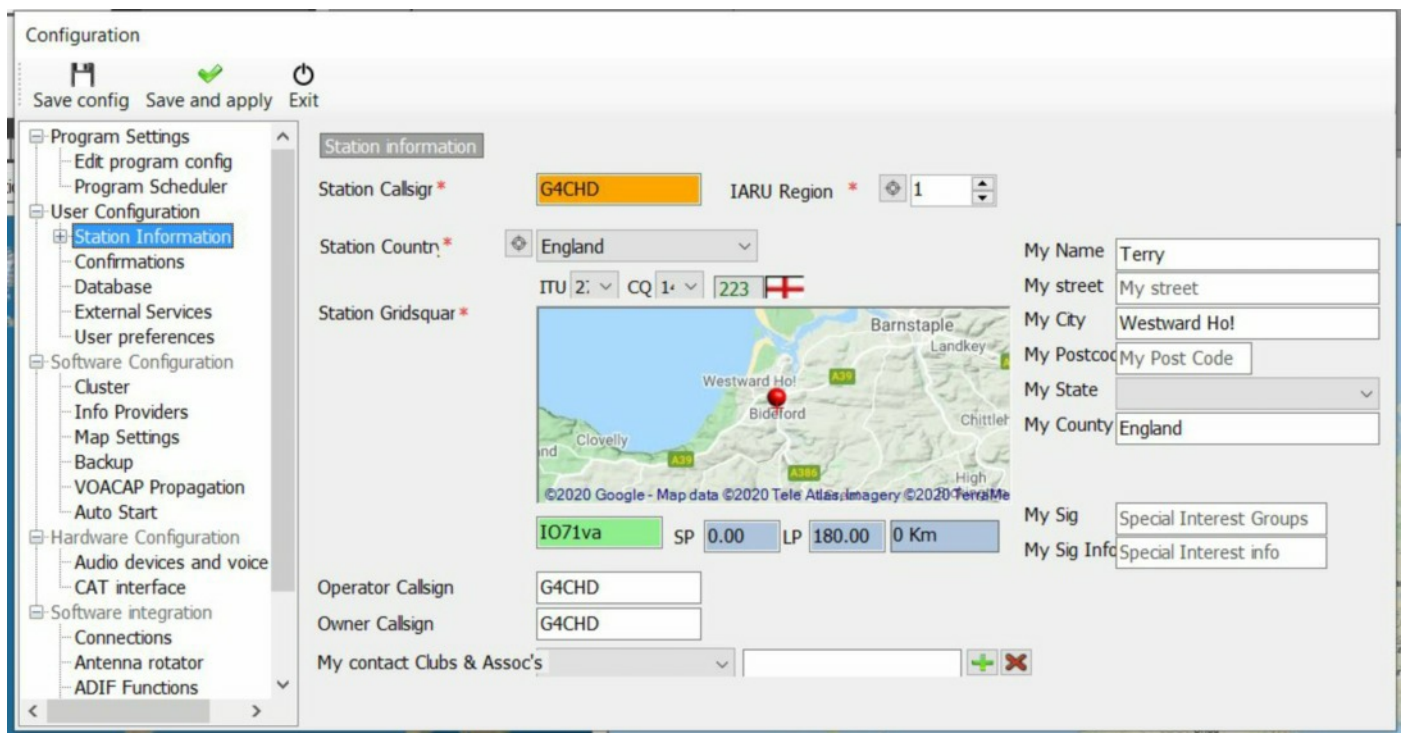
The system is shown schematically below :-



LOG4OM SETUP

If the preferred option to download Omnirig at the same time as Log4OM 2 was adopted then Log4OM can now be run giving the following display and the User Configuration Settings window will also be open as shown on the next page. The following initial settings should now be made in order to test the system. A fuller description of setting up and using Log4OM 2 will be produced later.





There can be some confusion with regards to the different 'Callsign' entries which can be best explained thus :-

eg if GW1XXX is operating the station at the QTH of G1YYY using a special callsign of GB100ZZZ then the Owner is G1YYY, the Operator is GW1XXX, and the Station callsign is that used on air ie GB100ZZZ.

Also enter your Locator and your Name - the rest is optional.

Now select the CAT interface section and select Omnirig as the CAT Engine and Auto Start CAT.

A Database in which to store your log is now required. Go to the Database section and select SQLITE as the database type and either select an existing file or click New and create a fresh one. Finally click on Save and Apply (green tick) to save your settings.

You should now be able to restart Log4OM and SDRuno and check that they and the IC-7300 all track each other. As said earlier a full description of setting up and operating Log4OM 2 will be presented later.

The final schematic diagram is :-

Good Luck !!!

