

Using BlueDV software for Windows (DMR/DSTAR and YSF using a PC Headset)

By John M Wysocki ZL2TWS

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From the author of ircDDB Remote[1], Peanut[2] for the Android Phones and Windows, comes BlueDV for Windows written by David PA7LIM.

This software allows Digital Voice (DV) users who are travelling, not able to put up an antenna or unable use RF equipment, to enjoy DV modes such as DSTAR/DMR and when implemented Yaesu System Fusion (YSF). Until recently users of these various digital systems had to invest in costly transceivers, have access locally to repeaters to use and access the digital networks; or use other devices such as digital hotspots. For many this was cost prohibitive, but the cost has now decreased as many Chinese manufacturers have flooded the global market with their products, especially with DMR (Digital Mobile Radio) handhelds.

Many amateurs have used this as a way to stop themselves from having to learn new systems or as an excuse so that they don't have to do anything keeping the status quo alive and well.

With David's software this is no longer the case, making the preverbal dipping one's toe in the water with an almost no expense needed solution. The big advantage is that once tried if you don't like it then the hardware required can simply be sold on TradeMe to the next person.

I am sure that there are many takers once this article is read!

So, what's required?

To QSO with others you will need a Windows PC, headphones and a microphone (headset) or desktop speakers and microphone also work well, plus an internet connection.

You will need to purchase an AMBE3000 Vocoder USB Dongle device such as: DV3000 from NW Digital radio available here: <http://nwdigitalradio.com/product/thumbdv/>.

It also works with the DV3K from InternetLabs:
http://www.dv3kdongle.com/DV3K_Dongle/Home.html

and available from <https://www.gigaparts.com/usbd-star-device-for-pc.html> and the DVMEGA DVStick30: <http://www.dvmega.nl/dvstick30/>

At the time of writing I used Windows 7 64bit on my laptop and another user has used it on a Mac running Windows 10 using Parallels software as a virtual solution. Both systems work without any issues.

On the 31 March 2019 a new version of BlueDV pre-Beta release V1.0.0.9551 for D-STAR/DMR/YSF was made available. See here: <<http://www.pa7lim.nl/bluedv-windows/>>
 My employment as Electrical and Marine Engineer on board a ship does not allow me to use RF because no repeaters are available when away from land. Internet via satellite and miles out at sea is the only way to I can QSO using DV on the D-STAR or DMR networks already established in New Zealand.

The software was easy to setup with D-STAR and DMR registration numbers (both systems require separate call-sign registrations for each to work). Read on for information about registration.

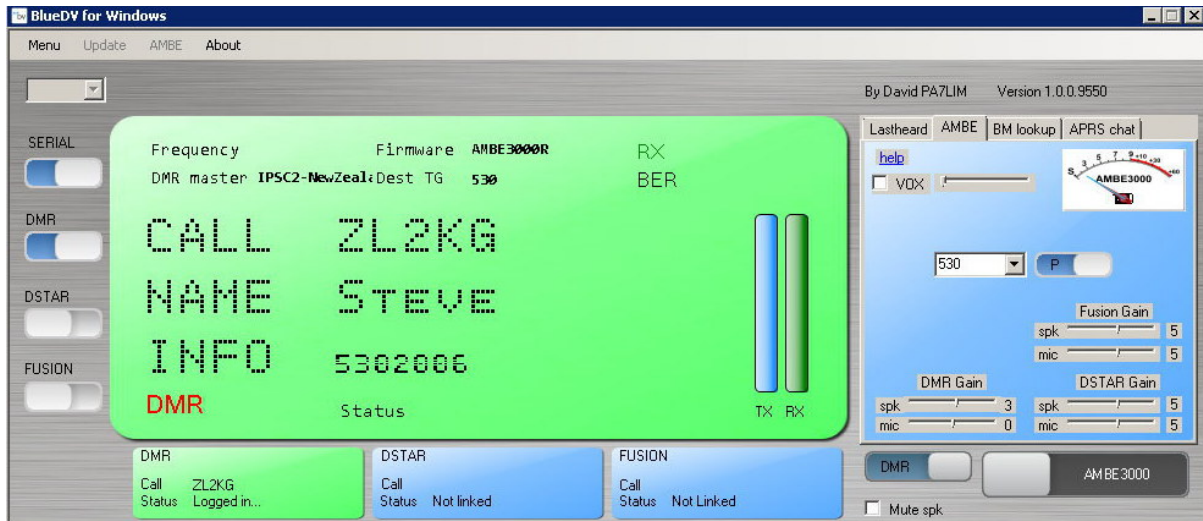


Figure 1. ZL2KG DMR on Air.

Figure 1 shows the first maritime mobile DMR DV Dongle BlueDV contact with Steve ZL2KG. This took place on 31 March 2019 when ZL2TWS/MM VK6 was 100 kilometres west of Exmouth Western Australia, in the Indian Ocean.

I had already made three D-STAR contacts with Mark ZL2UFI, Jeff ZL1TOB and Jim ZL2UBE on the ZL2VH Module C Repeater Gateway at Mt Climie.

IPSC2-NewZealand												
REGISTERED (9.02.11) 2019-03-31 13:34:03												
STATUS	NR	REFLECTOR	CALL TS1	NET TS1	CALL TS2	NET TS2						
MONITOR	1	TG 530 (530)										
	2	New Zealand (4850)			ZL2TWS (5301011)	--> CC-CC (LDJ50) (5)						
					ZL2TWS (5301011)	--> DMR+ (MMD) REFL (5)						
MATRIX												
REMAP												
BRIDGE	NR	REPEATER	INFO	ID	TS1	TS1-INFO	TS2	TS2-INFO	REF	START	SYSTEM	HARDWARE
DONGLE	1	ZL3DVR	Christchurch (26)	530305	13 1 8			4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	2	ZL4IND	Invercargill (26)	530306	1 8			4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	3	ZL1BU	Taupo (26)	5301200	13 1 153 8		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
SERVICE	4	ZL1KPM	Tu Kaitiaki (25)	5301207	8		530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	5	ZL1KLP	Hunua (28)	5301083	8		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
SITE-INFO	6	ZL1RIC	Papakura (25)	5301172			530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	7	ZL1TGS	Auckland (29)	5301117	8		530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	8	ZL1TOB	Whangarei (29)	5301162	1 153		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	9	ZL2APD	Shannon (28)	5302118	13 1 153 8		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	10	ZL2ARL	Wellington, RE787q (27)	5302094			530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
DMR+ IPSC2	11	ZL2HB	ZL2HB (29)	5301114			530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	12	ZL2JEL	Wanganui (30)	5302111	13 1 153		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	13	ZL2OR	Town, LOC4TOR (29)	5302149			530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
DSTAR OE1KBC	14	ZL2TWS	ZL2TWS (29)	5301011			530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	15	ZL2WAL	Wellington, RE787p (28)	5302024	13 1 153 8		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	16	ZL3LD	Christchurch, RE66 (24)	5300010	13 1 153		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	17	ZL3DVR	Christchurch RE66K (30)	5303190	13 1 8		530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	18	ZL300C	Christchurch (29)	5303109	8		530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	19	ZL45GB	TE ANAU (26)	5300044	13 1 8		530	4850 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	MMDVM
	20	IPSC-ZLC	IPSC-ZLC (30)	100001	153 8		530	530 (5301011) ZL2TWS	4850/60	4850	DMR+ WW	CC-CC

Figure 2. IPSC2-DMR-ZL2TWS On Air.

Figure 1 and 2 show Steve ZL2KG being received followed by ZL2TWS traffic on the DMR IPSC2 ZL Server. The signal is seen propagating around other New Zealand Hotspot connections on Talk Group 530.

At the time of writing this article the Beta version of the software did not function on YSF. David PA7LIM is currently working on the Fusion coding but has stopped for now to concentrate on finishing his Peanut project. It should be available when another Beta or final version is released. DV has never been more affordable. The main cost is the AMBE3000 Dongle now available from three suppliers listed earlier.



Figure 3. ZL2UFI D-STAR On Air.

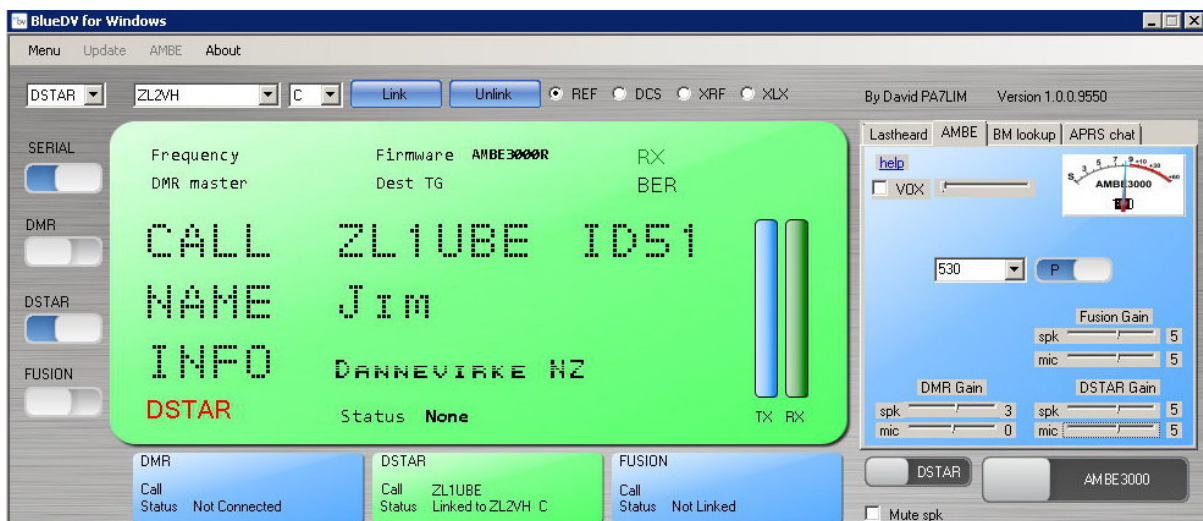


Figure 4. ZL1UBE D-STAR On Air.

Try something new with DV modes and if you already own a DV Dongle AMBE3000 series you are almost ready to go. Download, install and setup the BlueDV and get talking on D-STAR or DMR (YSF to follow).

For D-STAR registrations contact Mark ZL2UFI <zl2ufi@nzart.org.nz> or at the ZL2VH registration page here: <<https://123.255.47.67/Dstar.do>>.

For DMR registrations here: <<https://radioid.net/register#>>

73 and good DV. John ZL2TWS

References:

- [1] Software Review: ircDDB remote for iPhone/iPad or Android: Break-In November/December 2016 page 14.
- [2] News and New Products: Break-In March/April 2019 page 47.
- [3] Download BlueDV from here: <<http://software.pa7lim.nl/BlueDV/BETA/Windows/>>
- [4] Download Peanut from here: <<http://www.pa7lim.nl/peanut/>>
- [5] Download ircDDB Remote from here: <<http://www.pa7lim.nl/ircddb-remote-for-iphoneipad/>>