ZUMspot USB

The ZUMspot USB revision 0.6 is a low power simplex digital mode hotspot. It supports Dstar, DMR, Fusion, NXDN, P25, M17 and POCSAG. Because of the USB interface it takes up less space than the other ZUMspot products. It is made to work with a Windows/Mac/Linux PC but it can be used with a Raspberry Pi.



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ZUMspot USB specifications:

- ZUMspot USB Board Fully Assembled And Tested
- High performance 32-bit ARM processor
- Supports DMR, P-25, D-Star, System Fusion, NXDN, M17 and POCSAG
- Onboard LEDs to show status (Tx, Rx, PTT, Mode)
- Up to 10mW RF power
- Advanced built-in UHF antenna
- The firmware is pre-loaded and is easily upgraded via software

Kit includes:

- ZUMspot USB UHF Board
- 1 Year Warranty

Windows Setup:

Power Up:

- Install the antenna into the RF connector.
- Insert the ZUMspot USB into any of the USB ports on your Windows machine. All of the LEDs will flash when first powered on and the PWR LED will remain on. Also, if you have the sound enabled on your computer, you should hear the USB device enumerate twice.

Device drivers:

Once the device drivers for the board have loaded, Device Manager should show a new COM port. Make a note of that port number.

🛔 Device Manager — 🗆					
<u>F</u> ile <u>A</u> ction <u>V</u> iew <u>H</u> elp					
V 🗄 DESKTOP-FVM5H05					
> 📲 Audio inputs and outputs					
> 🗃 Batteries					
> ଃ Bluetooth					
> 👰 Cameras					
> 💻 Computer					
> 🚘 Disk drives					
> 属 Display adapters					
> 🛺 Human Interface Devices					
> 🦏 IDE ATA/ATAPI controllers					
> 🚽 Jungo Connectivity					
> 🥅 Keyboards					
> 🕼 Mice and other pointing devices					
> 🛄 Monitors					
> 🔁 Network adapters					
V Ports (COM & LPT)					
Maple Serial (COM5)					
> 🖻 Print queues					
> Processors					
> 📕 SD host adapters					
> 📱 Software devices					
ightarrow $ ightarrow$ Sound, video and game controllers					
> 🍇 Storage controllers					
> 🍢 System devices					
> 🏺 Universal Serial Bus controllers					

You may have to manually load the drivers on machines running **Windows 7** and earlier, or if there is a yellow exclamation point. Follow the **Installing device drivers** section <u>later in this document</u>.

Windows Software

For more information about BlueDV, visit the website of David PA7LIM. https://www.pa7lim.nl/bluedv-windows/

Download and install BlueDV for Windows. Be sure to download the zip file with the most recent date. http://software.pa7lim.nl/BlueDV/BETA/Windows/

Configuring BlueDV

1. Launch the software and turn off "SERIAL" if it is already enabled.

🔤 BlueDV for	Windows					-		×
Menu Upd	ate About							
· · · · ·				By David PA	7LIM Versio	n 1.0.0.95	48	
SERIAL				Lastheard	AMBE BM loo	kup APR	S chat	
JENIAL	Frequency	Firmware Not detected	LISTENING	Time	Call 1	Name	Mode	
	DMR master	Dest IG	BER					
DMR	CALL							
DSTAR	NAME							
	* 1 1 m							
FUSION	INFU							
	Idle	Status None						
		Status None	14 14	/				
	DMR	DSTAR	FUSION	DST	TAR	A	MBE3000	
	Call Status Not Connected	Call Status Not Linked	Call Status Not Linked	Mute spk				

 Next select "Menu" -> "Setup". As a minimum, set "Your Call", the "Serial Port Radio", "DMR ID" and "Frequency". Next select "Save"

🛃 Device Manage 🛛 🐱 BlueDV fo	w BlueDV for Windows		– 🗆 X
File Action Viev Menu Upc	General	DMR	AMBE
	Your Call KI6ZUM	DMR ID hotspot 3106892	Use AMBE 🗌 (ThumbDV
Audio ing SERIAL	Serial Port Radio	DMR ID simple	Serial Port
Batteries Micro	RX/TX Colors Invert RXTX screen	QRG -50	DMR ID 2043000
 Bluetootł DMR 	Frequency 434600000	Enable at start	Baud rate 230400 Use AMBEServer
Devic Intel(F	Mode Timer 10 Seconds	DMR type BM V	Host/IP 192.168.1.10
8 Micro 8 Micro DSTAR	DYNECK power	No inband data Brandmeister	Port 2460 Start/Stop Beep
8 Micro 8 Servic	Latitude + v 52.0570 in decimals	DMR Master 2042 NL V	Kill timer (min) 5
Q Cameras FUSION Compute	Longitude + V 005.0739 in decimals	DMR+	DSTAR text Blue DV by PA7L
> 🕳 Disk drive > 🔙 Display a	Language English (Active after restart)	Master Reunion V	PTT keying Enable
> 🛺 Human Ir > 📷 IDE ATA/A	DSTAR		Serial port
 > Iungo Co > Exploratos > Mice and other pointing of 	DSTAR Module D APRS	FUSION QTH Location JO22MB	RX Indicator C Enable RTS DTR
 Monitors Ports (COM & LPT) 	Default reflector DCS600A (Empty is not connect)	Default reflector O YSF FCS YSF SC Scotland	PTT Button CTS DSR
Maple Serial (COM5) Maple Serial (COM5) Print queues Processors SD host adapters	Save Cancel	FCS FCS004 ~ 01 ~	
			.:

3. **NOTE:** If you reconnect the ZUMspot to another USB port, it may enumerate under a different COM port. So whenever you reconnect, double check your "Setup" with the COM port under Windows Device Manager.

4. Next turn "SERIAL" back on.

🐄 BlueDV for	Windows			- 🗆 X
Menu Upda	te About			
~				By David PA7LIM Version 1.0.0.9548
SEDIAL				Lastheard AMBE BM lookup APRS chat
JENIAL	Frequency	Firmware Not detected	LISTENING	Time Call Name Mode
	DMR master	Dest TG	BER	
DMR	CALL			
DSTAR	NAME			
FUSION	INFO			
	Idle	Statur Nega		
		Status None		
	DMR	DSTAR	FUSION	DSTAR AMPE2000
	Call Status Not Connected	Call Status Not Linked	Call Status Not Linked	AMBESUUU
	the connected			Mute spk

5. If the USB connection to the ZUMspot USB is functional, the software should display the "Firmware" version of the ZUMspot.

🐄 BlueDV for V	lindows					(—)		×
Menu Updat	a About							
~				By David PA	7LIM	Version 1.0.0	.9548	
SEDIAL				Lastheard	AMBE	BM lookup	APRS chat	
JENIAL	Frequency 434.600.000	Firmware ZUMspot-v1.4.14_	LISTENING	Time	Call	Name	Mode	
	DMR master	Dest TG	BER					
DMR	CALL							
DSTAR	NAME							
FUSION	INFO							
	IDLE sta	atus	TX RX					
	DMR	DSTAR	FUSION	DS	TAR		AMPE2000	
	Call Status Not Connected	Call Status Not Linked	Call Status Not Linked	Mute sp	k		AMBE3000	

6. For DSTAR, turn on the DSTAR button, select the reflector ("REF") you wish to connect to and then select "Link"



7. Once connected to the reflector, the software will display info when others are transmitting.

🔤 BlueDV for W	lindows				- 🗆 X
Menu Update	e About				
DSTAR ~	REF001 ~ C ~	Link Unlink	RF () XLX	By David PA7LIM	Version 1.0.0.9548
SERIAL				Lastheard AMBE	BM lookup APRS chat
JENIAL	Frequency 434.600.0	00 Firmware ZUMspot-v1.4.16 TX		Time Call	Name Mode
	DMR master	Dest TG BER		04:25 PM VE3SI	Z Steve DSTAR
DMR	CALL	VE3SIZ			
DSTAR	NAME	Steve			
FUSION	INFO	3023527			
	DSTAR	Status	TX RX		
	DMR	DSTAR			
	Call	Call VE3SIZ Call		DSTAR	AMBE3000
	Status Not Connected	Status Linked to REF001 C Status Not Link	ked	Mute spk	



Installing device drivers

1. If there is a yellow exclamation point next to the "Maple" device, the device drivers need to be manually installed.



- 2. Download the drivers from GitHub:
- 3. https://github.com/rogerclarkmelbourne/Arduino_STM32/archive/master.zip
- 4. Extract the files from the zip file and go to the "drivers\win" folder.
- 5. Run the "install_drivers.bat" file.



6. Click "Yes" to allow the driver installer to run.



7. You will see the "installing driver(s)" message.

											23
G - I	 drivers 	► win ►					- + →	Search win			م
Organize 🔻	🗟 One	en Shar	e with 🔻	Print	New folder		S		<u>.</u>		0
	C:\Wind	lows\system	32\cmd.exe							23	_
🔀 Favorit	In 💷 C:\l	Users\x\Desk	ktop\drivers	\win\wdi-s	imple.exe					• X	
Desk 📃	Extra	cting dr	viver fil	les						A	
📕 Dow	Suc Insta	cess lling dr	viver(s).							=	
🔛 Rece		0									
🦰 Librari											
J Mus											
Pictu											
📕 Vide											
🖳 Comp											
👊 Netwo											
										-	
ir in	nstall_driver	s Date	modified: 3	3/21/2019 9	:51 AM	Date created: 3/2	21/2019 10:00	5 AM			
Mark N	vindows Bate	ch File	Size: 3	14 bytes							

8. Click "Yes" to allow the second driver installer to run.



9. You will see the "installing driver(s)" message.



10. When the installation is done, "Press any key to continue".

Image: Search win →	٩
Organize 🛫 📾 Open Share with 💌 Print New folder	:= • FL 🕡
Eavori	
Desk	<u>_</u>
Installing Haple Serial driver	
Tress any key to continue	
A Mus	
E Pictu	
🛃 Vide	
r 🖳 Comp	
🛐 Netwo	
	-

11. The drivers will now load for the ZUMspot USB. When done, you should see the "Device driver software installed successfully" message.



12. Now you should see a "Maple Serial" com port with no yellow exclamation point.



Linux Bash Shell under Windows 10 - mmdvmhost command line

Installing tools:

Here are example instructions for installing bash shell: <u>https://itsfoss.com/install-bash-on-windows/</u>

Open a bash window.

apt-get update

Build MMDVMHost:

cd ~ git clone <u>https://github.com/g4klx/MMDVMHost/</u> cd MMDVMHost/ make

Edit MMDVM.ini according your preferences. See info on the mmdvm.ini file format: <u>https://on7lds.net/42/node/44</u>

nano MMDVM.ini (eg use Port=/dev/ttyS1 in [Modem])

Windows UART device names are mapped like:

COM1 >> /dev/ttyS1 COM2 >> /dev/ttyS2

COM192 >> /dev/ttyS192

Make sure these settings are present in the MMDVM.ini file:

[Log]

DisplayLevel=1 FileLevel=1 FilePath=. FileRoot=MMDVM

[General]

Daemon=0

Execute MMDVMHost: sudo ./MMDVMHost MMDVM.ini

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macOS - mmdvmhost command line

Build MMDVMHost using a terminal window:

cd ~ git clone <u>https://github.com/g4klx/MMDVMHost/</u> cd MMDVMHost/ make

Edit MMDVM.ini according your preferences. See info on the mmdvm.ini file format: https://on7lds.net/42/node/44

vi MMDVM.ini (eg use Port=/dev/ttyUSB0 in [Modem])

OSX UART device names are mapped like: /dev/tty.usb*

Make sure these settings are present in the MMDVM.ini file:

[Log] DisplayLevel=1 FileLevel=1 FilePath=. FileRoot=MMDVM

[**General**] Daemon=0

Execute MMDVMHost:

sudo ./MMDVMHost MMDVM.ini

macOS BlueDV Setup:

Installing Crossover

To get BlueDV running on macOS, a Windows emulator is needed first.

- 1. Download Crossover from here: <u>https://www.codeweavers.com/products/crossover-mac/</u>
- 2. Use free trial or enter purchase info
- 3. Open folder where Crossover was downloaded into (Usually it's the Downloads folder)
- *4.* Unzip Crossover.zip (Double click on Crossover.zip so that Archive Utility can unzip it) if you haven't already.
- 5. Drag the file Crossover.app and drop it over Applications. This installs Crossover on your Mac.

	📴 Do	wnloads		
	··· • · · · · · · · · · · · · · · · · ·	· 🖞 💿	Q Search	
Favorites	Name	Size	Kind ^	Date Added
MirDrop	Archive		Folder	Mar 13, 2019 at 6:28 PM
Recents	CrossOver	535 MB	Application	Today at 5:42 PM
Applications				
Desktop				
Documents				
🚯 Downloads				
iCloud				
liCloud Drive				
Locations				
🖾 Google Drive 🔺				
Remote Disc				
Tags				
O Work				
inhanaE				

Installing BlueDV Prerequisites

- 1. Open Crossover
 - a. Click on "Finder"
 - b. Go to the "Applications" folder
 - c. Double click on the Crossover app

		Q Search	
Favorites	Name	Date Modified	Size
	Calculator	Aug 17, 2018 at 7:29 PM	6.2 M
	搅 Calendar	Aug 17, 2018 at 8:36 PM	18.6 M
Recents	🕹 Chess	Aug 17, 2018 at 8:57 PM	8 M
	🔔 Cocktail	Oct 3, 2018 at 6:57 AM	9.7 M
7 (reprint and its	CocoaRestClient	Jul 10, 2016 at 11:25 AM	13.6 M
Desktop	Contacts	Oct 23, 2018 at 4:40 PM	21.4 M
Documents	CrossOver	Dec 3, 2018 at 10:27 AM	535 M
Downloads	Cube Print	Apr 18, 2016 at 2:48 AM	147.3 M
Downloads	🛞 DaisyDisk	Sep 14, 2018 at 3:45 AM	10.1 M
iCloud	Dashboard	Aug 17, 2018 at 6:53 PM	
iCloud Drive	📕 Dictionary	Oct 18, 2018 at 6:59 PM	3.1 M
	💕 Docker	Jan 14, 2019 at 3:54 AM	1.84 G
Locations	EAGLE-7.5.0	Mar 6, 2019 at 12:34 PM	
Google Drive ≜	▶ 💼 EAGLE-9.3.0	Feb 13, 2019 at 7:52 PM	
O Damata Dias	- e eDrawings	Mar 5, 2019 at 8:37 AM	208.8 M
Bemote Disc	S FaceTime	Feb 9, 2019 at 1:43 PM	9.9 M
Tags	📕 Font Book	Aug 17, 2018 at 8:00 PM	13.2 M
Work	Google Chrome	Feb 28, 2019 at 4:38 PM	406.5 M
	Google Drive File Stream	Feb 22, 2019 at 10:55 AM	217.2 M

2. Click on "Install a Windows Application"



3. Under the "Select Application" tab, type in "NET 4.5" and select "Microsoft .NET Framework 4.5". Then press "Continue"

CrossOver So	tware Installer	Cross	sOver Software Installer
Select Application Select Install	r Select Bottle Install & Finish	✓ Select Application ✓ Sel	lect Installer Select Bottle Install & Finish
Select an Appl	cation to Install	Select an	Application to Install
NET 4.5	0	NET 4.5	0
Microsoft . <mark>NET</mark> Framework <mark>4.5</mark>		Microsoft	.NET Framework 4.5.2
Microsoft NET Framework 451			***
Microsoft .NET Framework 4.5.2			Runs Well
Uninsted application INET 4.5		The Microsoft .NET Framework 4.5.1 is a highl 4 and the Microsoft .NET Framework 4.5. Mon	ly compatible, in-place update to the Microsoft .NET Framework e info
		CrossOver can download this software from th page.	he Internet. This software can be downloaded from its home
Microsoft .NET	ramework 4.5.2		
★★	Well		
rosoft .NET Framework 4.5.1 is a highly compa e Microsoft .NET Framework 4.5. More info	ible, in-place update to the Microsoft .NET Framework		
ver can download this software from the Intern	t. This software can be downloaded from its home		
Prowse All Applications	Eject Cancel Continue	? Browse All Applications	Eject Cancel Continue
rowse All Applications	Eject Cancel Continue	(?) Browse All Applications	Eject C:

4. Select "New Windows 7 64-bit Bottle...". Then change bottle name to something like "NET for BlueDV" or whatever you would like to call it. Then press "Continue"

•	CrossOver Sof	tware Installer		
	✓ Select Application ✓ Select Install	er 🗸 Select Bottl	e Install & Finis	h
	Select a Bottle	e to Install In	ito	
Compa	tible Bottles			
New	Windows XP Bottle			
New	Windows Vista Bottle			
New	Windows 7 Bottle	1	New Bottle Name:	
New	Windows 8 Bottle		NET for BlueDV	
Incom	patible Bottles			
New	Windows 98 Bottle			
New	Windows 2000 Bottle			
New	Windows Vista 64-bit Bottle			
New	Windows 7 64-bit Bottle			
New	Windows 8 64-bit Bottle			
New	Windows 10 Bottle			
New	Windows 10 64-bit Bottle			
2		Fiect	Cancel	Continue
\cdot		LJOCI	Cancel	Continue

5. Press "Install"



6. Click "Next"

Setup				
This winned will avi	da yay through the inst	allation process		
riis wizaru wiii gui	se you a rough are insc	alladoiri process.		
			About N	Cancel

7. Click check box to accept license agreement, and then click "Install"

right that you ma apply to your dis Component, whe bid request by a and the results ar agreement you m Microsoft shall ha products that cor conditions above	Any have to conduct benchmark testing. The foregoing obligations shall not closure of the results of any customized benchmark test of the NET revely such disclosure is made under confidentiality in conjunction with a prospective customer, such customer's application(s) are specifically tested or only disclosed to such specific customer. Nouthkhanding any other any have with Microsoft, if you disclose such benchmark test results, we the right to disclose the results of benchmark tests it conducts of your ngete with the .NET Component, provided it complies with the same
	 Print
By clicking "I acc product, I indica License Agreeme	ept the terms of the License Agreement" and proceeding to use the te that I have read, understood, and agreed to the terms of the End-User nt.
🗸 I ccept th	e terms of the License Agreement

8. Click "Finish"

	Microsoft .NET Framework 2.0 Setup
Setup Complet	e
Microsoft .NET	Framework 2.0 has been successfully installed.
It is highly recom security updates	mended that you download and install the latest service packs and for this product.
For more informa	tion, visit the following Web site:
Product Suppo	<u>rt Center</u>
	Einish

9. Click check box to accept license agreement, and then click "Install"



10. Press "Exit"



11. Click "Restart Now"



12. Click check box to accept license agreement, and then click "Install"

Please accept the license terms	; to continue.	í.
		<u> </u>
MICROSOFT SO	FTWARE SUPPLEM	
✓ 1 have read and accept the	a license terms.	3
To all official all all all all all all all all all	wiidhfiedhdwAlleeldfied	
Download size estimate:	0 MB	
Download time estimates:	Dial-Up: 0 minutes	
	Broadband: 0 minutes	
□ Yes, send information abo	ut my setup experiences to Microso	ft Corporation.
For more information, read the	e Data Collection Policy.	
For more information, read th	e <u>Data Collection Policy</u> .	
	Inst	al Cano

13. Click "Finish"

••	
	Installation Is Complete
Microsoft* .NET	.NET Framework 4 has been installed.
	Check for more recent versions on <u>Windows Update</u> .
	Enish

14. Click "Restart Now"



15. Click "Continue"

Waminger				
1. Setup may not i	un properly, because th	e Windows Update S	iervice is not availabl	e on this
2. Setup may not i	un properly, because th	e Windows Modules	Installer Service is no	t available on this
computer.				
1				

16. Click check box to accept license agreement, and then click "Install"

MICROSOFT SOFTWARE SU		
Solution and a solution of the	JPPLEMENTAL LICENSE 1	rerms 🔺
NET FRAMEWORK AND AS MICROSOFT WINDOWS OP	SOCIATED LANGUAGE F	PACKS FOR
Microsoft Corporation (or ba	sed on where you live, or	ne of its
affiliates) licenses this supple Microsoft Windows operating	ement to you. If you are li system software (the "s	icensed to use oftware"), vou
may use this supplement. Yo	iu may not use it if you do	not have a
licanea for tha entrusta voli	i mavilica mic ci inniaman	
I have read and accept the lice	ense terms.	
Tave read and accept the lice Download size estimate:	ense terms. O MB	
vave read and accept the lice Download size estimate: Download time estimates:	ense terms.) O MB Dial-Up: O minutes	

17. Click "Finish"

01	Installation Is Complete
Microsoft*	.NET Framework 4.5.2 has been installed.
1	
	Check for more recent versions on Windows Update.
	Einish

18. Click "Restart Now"

You must rest Restart Later	tart your computer to co	mplete the installation. If you choos t on .NET Framework may stop
working.	, applications dependent	con men namework may scop
	Restart <u>N</u> ow	Restart Later

19. Click "Done" to conclude the installation

•••	CrossOver Software Installer	
	✓ Select Application ✓ Select Installer 🔺 Select Bottle Install & Finish	
The	installation of Microsoft .NET Framework 4.5.2 completed	d.
	More diagnostic information can be found in the <u>debug log</u> .	
?	Eject Cancel Done	

20. You should see something like this. If so, then you have successfully installed .NET 4.5

	_	CIUSSOVEI -	- An Dotties		
		1	* ~	Q Search	
COLLECTIONS	Programs				
All Bottles					
BOTTLES					
NET for 🛈	Run Command				
	Control Danolo				
	Control Panela				
		Insta	all a Windows App	lication	



Installing BlueDV

- 1. Download the latest version of BlueDV for Windows from this page: <u>http://software.pa7lim.nl/BlueDV/BETA/Windows</u>
- 2. Extract the .MSI from the .zip file (Double click on BlueDV-09548-preBETA.zip so that Archive Utility can unzip it)
- 3. Click on "Install a Windows Application"



4. Under the "Select Application" tab, type in "BlueDV" and select "Unlisted application BlueDV". Then press "Continue"

Select Application	Select Installer Select Bottle Install & Finish
Sele	ct an Application to Install
BlueDV	8
Unlisted application '	"BlueDV"
Ur	listed application "BlueDV"
Ur	nlisted application "BlueDV"
Ur Use this profile to install applications	Ilisted application "BlueDV"
Ur Use this profile to install applications You will need the installer file or disc	Ilisted application "BlueDV" Untested not known to CrossOver. for this software.
Use this profile to install applications You will need the installer file or disc	Ilisted application "BlueDV" Untested not known to CrossOver. for this software.
Use this profile to install applications You will need the installer file or disc	Ilisted application "BlueDV" Untested not known to CrossOver. for this software.
Use this profile to install applications You will need the installer file or disc	Inisted application "BlueDV" Untested not known to CrossOver. for this software.
Use this profile to install applications You will need the installer file or disc	Ilisted application "BlueDV" Untested not known to CrossOver. for this software.
Use this profile to install applications You will need the installer file or disc ? Browse All Applications	Nisted application "BlueDV" Untested not known to CrossOver. for this software. Eject Cancel Continu

5. Click on "Choose Installer File..."

	✓ Select Application Select Installer ✓ Select Bottle Install & Finish
	Select an Installer Source
O	Choose Installer File The file you select will be launched to install the application
	Choose Installer Folder The folder you select will be treated like an installer disc
?	Eject Cancel Continue

6. Navigate to where you downloaded BlueDV. Select the BlueDV MSI file and press "Use this Installer". Then press "Continue".

	omotanoi				
Please choose a Window	/s installer file:				
Downloads	\$	Q 8	Search		
	Date M	odified	~	Size	Kind
	Mar 14,	, 2019 at 11:10 Pl	N		Folder
/-09548-preBETA.msi	Sep 27,	, 2018 at 12:21 P	М	8.5 MB	Documen
		Cancel		Use this in	staller
	Please choose a Window © Downloads /-09548-preBETA.msi	Please choose a Windows installer file: Downloads Date M Mar 14, 7-09548-preBETA.msi Sep 27	Please choose a Windows installer file: Downloads Date Modified Mar 14, 2019 at 11:10 PI P-09548-preBETA.msi Sep 27, 2018 at 12:21 Pi Cancel	Please choose a Windows installer file: Downloads Q. Search Mar 14, 2019 at 11:10 PM A-09548-preBETA.msi Sep 27, 2018 at 12:21 PM Cancel	Please choose a Windows installer file: Downloads Q. Search Date Modified Size Mar 14, 2019 at 11:10 PM P-09548-preBETA.msi Sep 27, 2018 at 12:21 PM 8.5 MB Use this in

7. Go to the "Select Bottle" tab. Select the "NET for BlueDV" bottle from previous steps. Then press "Continue"

Select a Bottle	to Install Into
Compatible Bottles New Windows 98 Bottle New Windows 2000 Bottle New Windows XP Bottle	It is recommended that you instal this application into a new bottle i order to avoid possible interference between programs.
New Windows XP 64-bit Bottle	New Pottle Name
New Windows Vista Bottle	Reve Dotte Name:
New Windows Vista 64-bit Bottle	BlueDv
New Windows 7 64-bit Bottle New Windows 8 64-bit Bottle New Windows 10 Bottle New Windows 10 64-bit Bottle Net for BlueDV	
?)	Eject Cancel Continue

8. Press "Install"

•••	CrossOver Software Installer
	✓ Select Application ✓ Select Installer ✓ Select Bottle Install & Finish
	CrossOver is ready to install
	Unlisted application "BlueDV"
	O O O O O Untested
	CrossOver will install from abadvera b Downloads b BlueDV-09548-preBETA.msi
	CrossOver will install into the bottle "NET for BlueDV"
? Ec	lit Install Options Eject Cancel Install

9. Click on "Next"



10. Select "Just me" and then press "Continue"

Select Installation Folder	
the Second could be a little PMA Section to the Collection Collec-	
ne installer will install BlueDVW indows to the following folder.	
o install in this folder, click "Next". To install to a different folder, enter it be	low or click "Browse".
Folder:	
C:\Program Files\BlueDV\BlueDVWindows\	Browse
	Disk Cost
Install BlueDVWindows for vourself, or for anyone who uses thi	s computer:
C Everyone	
C Just me	
Cancel < Back	Next >

11. Click on "Next"

E	BlueDVWindows		
Confirm Installation			
The installer is ready to install BlueDVWir	ndows on your comp	uter.	
Click "Next" to start the installation.			
	Cancel	< Back	Next >

12. Press "Close" on the last pop up window



13. Once installation is finished press "Done"

• • •	CrossOver Software Installer
	✓ Select Application ✓ Select Installer ✓ Select Bottle Install & Finish
The ir	stallation of Unlisted application "BlueDV" completed.
	More diagnostic information can be found in the <u>debug log</u> .
?	Eject Cancel Done

14. You can add the BlueDV icon to the taskbar by dragging and dropping it there.



15. To run BlueDV just click on the icon in the taskbar or double-click from within Crossover

Modifying COM Port

- 1. Open Crossover
- 2. Select the bottle where you installed the .NET 4.5 and BlueDV.

3. Double-click on "Run Command"

444		*	Q Search	
COLLECTIONS All Bottles BOTTLES NET for 0	Programs ^{RUE} DV BlueDV	Run Command		
	Control Panels	Internet Settings	Simulate Reboot	
	Task Manager	Wine Configuration	n	
+- +-		Install a Win	idows Application	

4. Type in "Regedit" into the Command section. Then click on "Run"

JSE DU	ttle: NET for BlueDV	\$
Comma	and: Regedit	Browse
Cr	eate log file	
Ext	tra logging channels (use sparingly):	
Le	eave blank for standard logging	

5. Within Regedit, navigate to: *HKEY_LOCAL_MACHINE -> Software -> Wine -> Ports*

		Registry Editor		
jistry Edit View Eavorites Help				
My Computer	Name	Туре	Data	
E HKEY_CLASSES_ROOT	(Default)	REG_SZ	(value not set)	
- HKEY_LOCAL_MACHINE				
HARDWARE				
🚍 🛄 Software				
🔁 🛄 Borland				
🕀 🧰 Classes				
🕀 🥅 Clients				
E CodeWeavers				
🕀 🦲 Crystal Decisions				
🕀 🥅 Microsoft				
🕀 🛄 Netscape				
E ODBC				
Policies				
🖻 🛄 Wine				
- LicenseInformation				
🕀 🛄 Mac Driver				
😟 🛄 MSHTML				
Ports				
庄 - 🛄 System				
HKEY_USERS				
HKEY_CURRENT_CONFIG				
	•			

6. Right-click (For trackpad users press down with two fingers) on "Ports". Then go to New -> String Value

• •	and the second	Registry Editor		
Registry Edit View Eavorites Help	· · · · · · · · · · · · · · · · · · ·			
⊡ <u>-</u> ∰My Computer	Name	Туре	Data	
HKEY_CLASSES_ROOT	(Default)	REG_SZ	(value not set)	
HKEY_CURRENT_USER				
1 HARDWARE				
🖻 🦲 Software				
😟 🥮 Borland				
🕀 🦲 Classes				
😟 🧰 Clients				
CodeWeavers				
Crystal Decisions				
🕀 🛄 Microsoft				
🕀 🛄 Netscape				
E ODBC				
Policies				
Registered Applications				
E- Wine				
LicenseInformation				
Lungelines and	1			
Systen Cxpand	N Kau			
	<u>Vev</u>			
	String Value N			
HKEY_DYN Delete Del	Binary Value			
Rename F2	DWORD Value			
	 Multi-String Value			Þ
Adds a new string valu	Expandable String Value			
⊆opy Key Name		2] 🧕 🧕		
	Tester			
	lask M	anager Wine Configuration		

7. Type in "com1" into the string value

		Registry Editor		
egistry Edit View Eavorites Help				
- 🚚 My Computer	Name	Туре	Data	
HKEY_CLASSES_ROOT	abl(Default)	REG_SZ	(value not set)	
HKEY_CURRENT_USER	👾 com1	REG_SZ		
E HKEY_LOCAL_MACHINE				
🕀 🛄 HARDWARE				
🖻 🛄 Software				
🕀 🛄 Borland				
E Crystal Decisions				
🕀 🛄 Netscape				
Policies				
Registered Applications				
E- Wine				
H Mac Driver				
I I I I I I I I I I I I I I I I I I I				
Ports				
TINET_DTN_DATA				
	•			
WERE MARTINES LOCAL MACHINESCO				 _

8. Open the Terminal app. Easiest way to do it is by clicking on the Spotlight icon on the top right corner of your screen. Then type "Terminal" and then press Enter

	× 1
тор ніт	
Terminal	
FOLDERS	
💼 terminal — update	>
🖿 terminal — cli	· =
🖿 terminal — angular	
im terminal — schematics	
terminal	
DEVELOPER	Terminal
h TerminalCodes.h — abadvera	Version: 2.9.1
terminal.js	
h TerminalCodes.h — cristinavenegas	
terminal-highlight.js — TC-redis-m	Kind Application
terminal-highlight is corona-liste	Size 10.1 MB Created 10/3/18
OTHER	Modified 10/3/18
	Last opened 3/11/19

9. Go back to Regedit and right-click on "com1" and select "Modify..."

		Registry Editor		
Registry Edit View Eavorites Help				
Registry Edit View Eavorites Help HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES_ROOT HKEY_CLASSES HARDWARE Software Software Cleats CodeWeavers CodeWeavers CodeWeavers Microsoft Netscape ODBC Policies Wine Wine	Name (a)(Default) (com 1	Type REG_52 Modify_BirXry Data Delete Del Bename F2	Data (value not set)	
Modifies the value's data				

- 10. Plug in the ZUMspot USB into one of the USB ports on your Mac.
- 11. Go back to Terminal and type in *ls /dev/tty.usb** and press Enter. The following line will show you the full name macOS gives to your ZUMspot. Copy that line and paste it into the "Value data:" field. Then click "OK"

		Registry Editor		🕒 🔍 💭 🎁 abadvera — -bash — 45×24
Registry Edit View Eavorites Help				Last login: Tue Mar 19 12:22:12 on ttys005
My Computer My Computer	Name (Default) (Default) (Default)	Type REG_5Z REG_5Z Value name: com1 Value data: /dev/tty-ustmodem1	Data (value not set) Edit String 41101 OK Cancel	abadduoza - § 1s /dov/tty.usbw /dov/tty.usbmodem141101 abadvera - \$ []

12. Now you should see something like this:

•		Registry Editor		
istry Edit View Eavorites Help				
My Computer	Name	Туре	Data	
HKEY_CLASSES_ROOT	abl/pofouls)	REG_SZ	(unline moth ant)	
HKEY_CURRENT_USER	alli com1	REG_SZ	/dev/tty.usbmodem141101	
E- Sortware				
CodeWeavers				
+ Crystal Decisions				
🕀 🧰 Microsoft				
🗄 🛄 Netscape				
DDBC				
🗀 Policies				
🖻 🛄 Wine				
🛄 LicenseInformation				
🕀 🛄 Mac Driver				
Ports				
				_
	•			

a. NOTE!! - If you remove the ZUMspot and insert it into a different USB port on the same computer, it will enumerate under a different name. So always insert it into the same USB port or you will have to go through the previous steps all over again to set it up with a different name.

Finishing the setup of BlueDV

- 1. Open BlueDV by clicking on the icon in the taskbar or double-click from within Crossover
- 2. Launch the software and turn off "SERIAL" if it is already enabled.

🔤 BlueD	V for Windows				– 🗆 X
Menu	Update About				
	~			By David PA7LIM	Version 1.0.0.9548
SERIAL	1			Lastheard AMBE	BM lookup APRS chat
JEMIAL	Frequency	Firmware Not detected	LISTENING	Time Call	Name Mode
	DMR master	Dest IG	BER		
DMR	CALL				
DSTAR	NAME				
FUSION	INFO				
T	Idle				
l'	luie	Status None	TX RX		
	DMR	DSTAR	FUSION	DSTAR	
	Call Status - Nat Connected	Call	Call Status Net Linked		AMBE3000
	Status Not Connected	Judius Not Linked	Status Inot Linked	Mute spk	



3. Next select "Menu" -> "Setup". As a minimum, set "Your Call", the "Serial Port Radio", "DMR ID" and "Frequency". Next select "Save"

🛃 Device Manage 🛛 🔤 BlueDV fo	BlueDV for Windows			-	
File Action View Menu Upo	General	DMR		AMBE	
	Your Call KI6ZUM	DMR ID hotspot	3106892	Use AMBE	(ThumbDV
DESKTOP-FV Audio inc	Serial Port Radio	DMR ID simple	3106892	Serial Port	
- Batteries SERIAL	Save QSO Log	ORG	-100	DMRID	2043000
Micro	RX/TX Colors Invert RXTX scree	n 🗌	0	DMRID	220400
Bluetoott DMP	Frequency 434600000	Enable at start		Baud rate	230400
8 Devic	Mode Timer 10 Seconds	DMR type	BM ~	Use AMBEServer	102 109 1 10
8 Intel(F	DVMEGA power	No inhand data		Host/IP	132.100.1.10
Micro DSTAR		Brandmeister		Port Start/Stop Reep	2460
8 Micro	Latitude + ~ 52.0570 in d	ecimals DMR Master	2042 NL \sim	Kill times (min.)	5
Servic	Longitude + ~ 005.0739 in d	ecimals Master Passwor	passw0rd		BlueDV by PA7L
Compute	Always on top	DMR+		DSTARtext	
> 👝 Disk drive	Language English V (Active	a after mentant) Master	Reunion ~	PTT keying	
> 🙀 Display a	Cangeogo (Acam	and reactine y		Enable	
> TIDE ATA/A	DSTAR			Serial port	~
> 🚽 Jungo Co	DSTAR Module D V	FUSION		RX Indicator	Enable
Mice and other pointing of	APRS	QTH Location	JO22MB	O DTR	
> 🛄 Monitors	Enable at start	Enable at start		PTT Button	
Network adapters	Default reflector DCS600A (Empty is n	ot connect)	O TSF () FCS	● CTS	
Maple Serial (COM5)		YSF	SC Scotland ~	O DSR	0
> 🖃 Print queues	Save Cancel	FCS	FCS004 ~ 01 ~		
Processors SD bost adapters					
so nost adapters					

NOTE: If you reconnect the ZUMspot to another USB port, it may enumerate under a different COM port. If so you will need to update the settings.

4. Next turn "SERIAL" back on.

🖮 BlueDV for W	lindows						
Menu Update	e About						
~				By David PA	Ve	rsion 1.0.0.95	48
SERIAL				Lastheard	AMBE BM	lookup APR	IS chat
	Frequency	Firmware Not detected	LISTENING	Time	Call	Name	Mode
1 million (1997)	DMR master	Dest IG	BER				
DMR	CALL						
DSTAR	NAME						
FUSION	INFO						
	Idle s	tatus None	TX RX)			
	DMR	DSTAR	FUSION	DS	TAR		MPE2000
	Call Status Not Connected	Call Status Not Linked	Call Status Not Linked			A	MBESUUU
	Status Hot Confidented	Status Hot Brited		Mute spl	k		

5. If the USB connection to the ZUMspot USB is functional, the software should display the "Firmware" version of the ZUMspot.



6. As an example, for DSTAR, turn on the DSTAR button, select the reflector ("REF") you wish to connect to and then select "Link"



7. Once connected to the reflector, the software will display info when others are transmitting.

BlueDV for V Menu Update	Vindows e About						□ ×
DSTAR 🗸	REF001 V C V	Link Unlink • REF	O DCS O XRF O XLX	By David PA	7LIM Ver	sion 1.0.0.95	48
SERIAL				Lastheard	AMBE BM	ookup APF	RS chat
	PMP moston	Firmware ZUMspot-V1.4.16		Time	Call	Name	Mode
	DMK master	Dest TG	BER	04:25 PM	VE3SIZ	Steve	DSTAR
DMR	CALL V NAME S	E3SIZ teve					
FUSION		23527					
	DOTAN St.	atus	TX RX				
	DMR Call	DSTAR Call VE3SIZ	FUSION Call	DST	TAR	A	MBE3000
	Status Not Connected	Status Linked to REF001 C	Status Not Linked	Mute spk	(



Setup Pi-Star:

WiFi:

- Plug in the ZUMspot USB, to one of the USB ports on the Raspberry Pi.
- Power up the Raspberry Pi
- After 3 minutes, scan for WiFi access points from your phone or laptop. One should appear with the name "**Pi-Star-Setup**"
- Connect to it. When asked for the Wi-Fi password type in: raspberry
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website: <u>http://pi-star</u> (for Windows, Linux and Android devices <u>http://pi-star.local</u> (for OS X and iOS devices)
- You should see this page.

0	192.168.1.26	ۍ	• • • • • +
Hostiane: pistar		P-92413.4.17 / DesPécard. 20190315	
P	I-Star Digital Voice Dashboard for M1	ABC	
	No Mode Defined		
	I don't know what mode I am in, you probaly just need to configure me. You will be re-directed to the configuration portal in 10 secs		
	In the mean time, you might want to register on the support page here: https://www.facebook.com/groups/pistarusergroup/ or the Support forum here: https://forum.pistar.uk/		
	In State: If you benchmark, Su Andy Topic (1980) 2184-2015. Indibiditional probabilities of your Internet (INSIN), MMCMMBah developed by Kim Nackel (1999), News Integra (2014), Inser Nim Interhandin Gimus and Citek Hank Inson this Daspert Finana Gilly out open of In Spatial Transmission.		
 _			

- Go to **Configuration**
 - You will be asked to put in the default username which is "**pi-star**" and the default password which is "**raspberry**"

• Select "Configure WiFi" and then click on "Scan for Networks (10 secs)"

Node Callsign:		pi-star.local		•
	M1ABC			
Radio Frequency:	438.800.000 MHz			
Latitude:	50.00 deg	rees (positive value fo	r North, negative for Sou	ith)
Longitude:	-3.00 deg	rees (positive value fo	r East, negative for West	:)
Town:	Town, L0C4T0R			-
Country:	Country			
URL:	http://www.mw0mwz.c	o.uk/pi-star/	Auto 💽	Manual
Radio/Modem Type:			0	
Node Type:	Private OPubli	c		
System Time Zone:	America/Los_Angeles	0		
Dashboard Language:	english_us 🗢			
Setting Dashboard Access:	OPrivate ○Publi	c	/alue	
ircDDBGateway Remot	e: • Private OPubli	c		
SSH Access:	Private OPubli	c .	Pakant Paguinad if the	and
AUTO AP:		NOT	: Keboot Kequirea if char	ngea
Int	Wirele: erface Information	ss Information and Stat	stics Wireless Infor <u>matio</u> r	·
Interface Name : whar Interface Status : Inte IP Address : Subnet Mask : Mac Address : b8:27:e Transferred Packets : Transferred Packets : Transferred Packets :	Wirele erface Information 10 erface is down ab:1b:b1:b9 sterface Statistics	ss Information and Stat Connected T AP Mac Add Bitrate : Signal Level	stica Wireless Information ess : :	
Interface Name Inter Interface Status : Inter Interface Status : Inter PAddress : B8:27:e Subnet Mask : Mac Address : B8:27:e Mac Address : B8:27:e Transferred Packets : Transferred Bytes :	Wirele erface Information 00 erface is down eb:1b:b1:b9 bb:1b:b1:b9 Informatio	s Information and Stat Connected 1 AP Mac Add Bitrate : Signal Level	etics Wireless Information 0 : ress : :	,
Interface Name : War Interface Status : War Interface Status : War Subnet Mask : Mac Adress : b8:27:e Mac Adress : b8:27:e Transferred Packets : Transferred Bytes : Transferred Bytes :	Wirele erface Information 10 erface is down eb:1b:b1:b9 eb:1b:b1:b9 eterface Statistics Informatio	s Information and Stat A Prac Add Bitrate : Signal Level n provided by ifconfig and emote Access Password	atics Wireless Information 0 : ess : : : : :	
Interface Name : viar Interface Status : Inter PAdress : Subnet Mask : Mac Address : BB:27:e Received Packets : Received Packets : Transferred Packets : Transferred Bytes :	Wirele erface Information 10 erface is down eb:1b:b1:b9 iterface Statistics Informatio R: spentf	es Information and State AP Mac Add Bitrate : Signal Level an provided by Ifconfig and amote Access Password Passeo Confige	sits Wretess Information 0 : ess : : : iwconfig rd Proceeded :	
Interface Name : wiar Interface Status : Inter P Address : Subnet Mask : Macc Address : 58:27:e Received Packets : Received Packets : Received Packets : Iransferred Packets : User Name pi-star pa	Wirele erface Information 00 erface is down eb:1b:b1:b9 bterface Statistics Informatio Re ssoord: WANTAC: This ch	n provided by ifconfig and provided by ifconfi	alls Wreless Information 0 : ess : : : : : : : : : : : : : : : : : : :	Set Passwo
Interface Name : Vian Interface Status : Intr P Address : Subet Mask : Mac Address : Bb:27/e Raceived Acts : Raceived Bytes : Transferred Bytes ; User Nome pi-stor pa	Wirele arface Information 10 arface is down ab:1b:b1:b9 bit:b:b1:b9 bit:face Statistics Re searct: WARNING: This ch AND	Information and Stat	atts Wireless Information 0 : exes : : : : : : : : : : : : : : : : : : :	Set Passwo

Node Callsign:	M1ABC			
Radio Frequency:	438.800.000 MHz			
Latitude:	50.00 degree	es (positive value for	North, negative for South	0
Longitude:	-3.00 degree	es (positive value for	East, negative for West)	
Town:	Town, LOC4TOR			
Country:	Country			
URL:	http://www.mw0mwz.co.u	k/pi-star/	Auto 💽 Mar	nual
Radio/Modem Type:			0	
Node Type:	• Private OPublic			
System Time Zone:	America/Los_Angeles	0		
Dashboard Language:	english_us ᅌ			
Setting Dashboard Access:	Private Oublic	Va	lue	
ircDDBGateway Remote:	 Private Oublic 			
SSH Access:	• Private OPublic			
Auto AP:	On Off	Note:	Report Required if change	bd
W/Fi Info	On Off	Apply Changes reless Configuration		
uPNP : (Win Info) (Scan for Networks (10 secs)	Ø0n ⊖0ff Wi Add Network Save (and co	Apply Changes release Configuration		
USer Name	Con: Off W	Apply Changes release Configuration model Mosterer (only a constraints)		
UPRP: Wit linte Scan for Nation/is (10 secs) User Name p1-star Possion	Con Off Wi Add Network Cover Cond cor Add Network Cover Cond cor Add Network Rem Prof: BARNENG: This cham AND th ADD	Apply Changes release Configuration www.cc) hole Access Password Feisser Confirm P set. the possword For server the possword For server Still account	d assword: it some	Set Passed

• Select your WiFi SSID and enter your password.

• Click on "Save (and connect)" to save the WiFi configuration

Node Callsign:		M1ABC				
Radio Frequency	y:	438.800.000	MHz			
Latitude:		50.00	degrees (positive	value for M	lorth, negative for South)	
Longitude:		-3.00	degrees (positive	value for E	ast, negative for West)	
Town:		Town, L0C4T0R				
Country:		Country				
URL:		http://www.mw0	mwz.co.uk/pi-star/		🗌 Auto 💽 Manual	
Radio/Modem Typ	pe:				•	
Node Type:		💿 Private 🔵	Public			
System Time Zon	ne:	America/Los_Ar	ngeles ᅌ			
Dashboard Langu	uage:	english_us	O			
			Apply Chang	les		
			Firewall Config	uration		
Setting	g			Valu	le	
Dashboard Acces	ss:	⊙Private ◯	Public			
ircDDBGateway R	Remote:	○Private ○	Public			
SSH Access:		Private ()	Public	Nota: I	Pahaot Required if changed	
AULU AF.				Note. I	Report Required in changed	
uPNP :		∙On Off	Apply Chang	jes juration		
WiFi Info		●On ○Off	Apply Chang	uration		
WiFi Info Network 0 Delete SSII PSk Scan for Networks (D : [NETGEAR3; K	on Off	Apply Chang Wireless Config	uration		
WiFi Info Network 0 Delete SSII PSk Scan for Networks (Networks found : Connect) D : [NETGEAR3; K [on Off	Apply Chang Wireless Config ve (and connect)	uration Signal	Security	
WiFi Info Network 0 Delete SSII PSH Scan for Networks (Networks found : Connect Select ATTg1) D : [NETGEAR32 K (10 secs) [Ad : Tyj66a	on Off	Apply Chang Wireless Config // (and connect)	uration Signal -29 dBm	Security WPA2-PSK (TKIP) with WPS	
WIFI Info Network 0 Delete SSII PSF Scan for Networks (Networks found : Connect Select ATTg Select Humpt)) NETGEAR32 K (10 secs) (Ad Tyj66a ty	on Off	Apply Chang Wireless Config // (and connect) Channel 2.4GHz Ch11 2.4GHz Ch3	signal -29 dBm -45 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES)	
WIFI Info WIFI Info Network 0 Delete SSII PSF Scan for Networks (Networks found : Connect Select ATTgT Select Humpt Select NETGE)) NETGEAR32 K (10 secs) (Ad Tyj66a ty EAR32	on Off	Apply Chang Wireless Config ////////////////////////////////////	signal -29 dBm -45 dBm -46 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS	
WIFI Info Network 0 Delete SSII Scan for Networks (Networks found : Connect Select ATTg Select Humpt Select ATTM)) INETGEAR32 K (10 secs) Ad Tyj66a ty EAR32 nJCI22	on Off	Apply Change Wireless Config ve (and connect)) Channel 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHZ Ch11	Signal -29 dBm -45 dBm -46 dBm -67 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS	
WIFI Info WIFI Info Network 0 Delete SSIE Scan for Networks (Networks found : Connect Select ATTg Select Humpt Select ATTW Select PIXEI	D : NETGEAR32 K (10 secs) (Ad Tyj66a ty EAR32 nJCI22 L	on Off	Apply Chang Wireless Config ve (and connect) Channel 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) NPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS WPA2-PSK (AES)	
WiFi Info WiFi Info Network 0 Delete SSII Scan for Networks (Networks found : Connect Select ATTg Select Humpt Select ATTNr Select PIXEI Select PIXEI Select PIXEI	D : NETGEAR33 K (10 secs) Ad Tyj66a ty EAR32 nJCI22 L L GUEST	on Off	Apply Chang Wireless Config (and connect) Channel 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch1	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm -85 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (AES)	
UPNP: WiFi Info Network 0 Delete SSII PSF Scan for Networks (Networks found : Connect Select ATTg Select Humpt Select NETGE Select PIXEI Select PIXEI Select PIXEI Select PIXEI	D : NETGEAR33 (10 secs) Ad Tyj66a ty EAR32 nJCI22 L L_GUEST reless	on Off	Apply Change Wireless Config (and connect) Channel 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm -85 dBm -85 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS NPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (AES)	
WiFi Info Network 0 Delete SSII PSH Scan for Networks (Networks found : Connect Select ATTgi Select Humpt Select NETGE Select PIXEL Select PIXEL Select PIXEL Select WiWir Select WiWir)) [NETGEAR32 K	d Network Sav	Apply Chang Wireless Config (and connect) Channel 2.4GHz Ch11 2.4GHz Ch11	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm -85 dBm -85 dBm -87 dBm -87 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS NPA2-PSK (TKIP) with WPS NPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS NPA2-PSK (AES)	
WiFi Info Network 0 Delete SSII PSH Scan for Networks (Networks found : Connect Select ATTgi Select Humpt Select NETGE Select PIXEL Select PIXEL Select PIXEL Select Wiwin Select Wiwin Select bbtes)) [NETGEAR32 K [on Off	Apply Chang Wireless Config (and connect) Channel 2.4GHz Ch11 2.4GHz Ch3 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch6 2.4GHz Ch6	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm -85 dBm -85 dBm -88 dBm -88 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (AES)	
WiFi Info Network 0 Delete SSII PSH Scan for Networks (Networks found : Connect Select ATTgi Select Humpt Select NETGH Select PIXEI Select PIXEI Select PIXEI Select Wiwin Select Wiwin Select Wiwin)) (10 secs) (Ad) Tyj66a ty EAR32 nJCI22 L L_GUEST reless st	on Off	Apply Chang Wireless Config (and connect) Channel 2.4GHz Ch11 2.4GHz Ch3 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHz Ch11 2.4GHZ Ch11 2.4GHZ Ch11 2.4GHZ Ch6 2.4GHZ Ch6 2.4GHZ Ch6	Signal -29 dBm -45 dBm -46 dBm -67 dBm -83 dBm -85 dBm -88 dBm -88 dBm -88 dBm	Security WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS WPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (AES) WPA2-PSK (TKIP) with WPS WPA2-PSK (TKIP) with WPS	
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- Reboot your Raspberry Pi
- Now you can continue on the "Configuration" section below.



Ethernet:

- Plug in the ZUMspot USB, to one of the USB ports on the Raspberry Pi.
- Connect an Ethernet cable to the Raspberry Pi and then turn on the power.
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website: <u>http://pi-star</u> (for Windows, Linux and Android devices <u>http://pi-star.local</u> (for OS X and iOS devices)
- You should see this page.

Pi-Star	r Digital Voice Dashboard for P o No Mode Defined White white reder I an III, you probely just need to configure The will be re-decaded to the configuration potch in 10 exc	Aller La La La Manager Bandaria MIABC Baladare I I Adma Configuration	
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	In the mean time, you might want to register on the support page here: https://www.facebook.com/groups/pistarusergroup/ or the Support forum here: https://forum.pistaruk/		
	P. Stor J. P. Spor. Default-store, & André Nacional (2014). 13:15. Store J. Store and Store and Store and Store (2014). Store and Store and Store and Store (2014). Micro Store and Store and Store (2014). Store and Store and Store and Store (2014). Store and Store and Store and Store Annual Store and Store and Store Annual.		

- Go to "Configuration"
 - You will be asked to put in the default username which is "**pi-star**" and the default password which is "**raspberry**"

Configuration:

Change the Node Callsign to your own, set the "Radio/Modem Type" to "ZumSpot - USB Stick", set the "System Time Zone" to your timezone, and set the "Dashboard Language" to the language you prefer.

	General Configuration
Setting	Value
Hostname:	pi-star Do not add suffixes such as .local
Node Callsign:	KI6ZUM
Radio Frequency:	434.600.000 MHz
Latitude:	50.00 degrees (positive value for North, negative for South)
Longitude:	-3.00 degrees (positive value for East, negative for West)
Town:	Town, L0C4T0R
Country:	Country
URL:	http://www.mw0mwz.co.uk/pi-star/
Radio/Modem Type:	ZumSpot - USB Stick
Node Type:	Private Public
System Time Zone:	America/Los_Angeles
Dashboard Language:	english_us 🗘
	Apply Changes

- Click "Apply Changes" when you are done
- When everything reloads, you will need to re-set the "Radio/Modem Type" to "ZumSpot -Raspberry Pi Hat (GPIO)" and click "Apply Changes" again.

Configuration (example to enable D-Star):

• Now you can turn on D-Star by selecting the "D-Star Mode" switch and clicking "Apply Changes"

		192.168.1.26	Ċ	• 1
			PI-Star	:3.4.17 / Dashboard: 2019011
	Di-Star	Digital Voice - Con	figuration	
	FI-Star		ingulation	
		Dashboard Admin Expert	Power Update Backup/Re	estore Factory Res
		Gateway Hardware Information		
Hostname	Kernel	Platform	CPU Load	CPU Temp
pi-star	4.9.35-V/+	Pi 3 Model B (IGB) - Stadium	0.96 / 0.54 / 0.25	53.7°C / 128.7°F
Cotting		Control Software		
Controller Softwar	e: ODStarR	epeater •MMDVMHost (DV-Mega Minimu	um Firmware 3.07 Require	ed)
Controller Mode:	 Simple 	x Node ODuplex Repeater (or Half-I	Ouplex on Hotspots)	
		Apply Changes		
		MMDVMHost Configuration		
Setting		Valu	ie	
DMR Mode:		RF Hangtime: 20	Net Hangtime: 20	
D-Star Mode:		RF Hangtime: 20	Net Hangtime: 20	
YSF Mode:		RF Hangtime: 20	Net Hangtime: 20	
P25 Mode:		RF Hangtime: 20	Net Hangtime: 20	
NXDN Mode:		RF Hangtime: 20	Net Hangtime: 20	
YSF2DMR:		•		
YSF2NXDN:				
YSF2P25:	\bigcirc			
DMR2YSF:		Uses 7 pre	fix on DMRGateway	
DMR2NXDN:		Uses 7 pre	fix on DMRGateway	
PUCSAG:	. Neutien	POLSAG P	aging Features	
MMDVM Display Type	Nextion	Port: /dev/ttyAMA0 Nextion	Layout: ON/LDS L3	2
		Apply changes		
Setting		General Configuration	10	
Hostname:	pi-star	Do not add suffixes such as .	local	
Node Callsian:	KI6ZUM			
Radio Frequency:	434.600.0	00 MHz		
Latitude:	50.00	degrees (positive value for N	orth, negative for Sout	:h)
Longitude:	-3.00	degrees (positive value for E	ast, negative for West))
Town:	Town, LOC	4TOR		
Country:	Country			
URL:	http://www	/.mw0mwz.co.uk/pi-star/	🔿 Auto 💽 Ma	anual
Radio/Modem Type:	ZumSpot	- Raspberry Pi Hat (GPIO)	0	
Node Type:	 Privat 	e OPublic		
System Time Zone:	America/I	.os_Angeles		
Dashboard Language	: english u	s 🗘		

Finished:

Once you have completed any of the configuration steps above you can start using the ZUMspot USB to connect to D-Star, DMR and other networks.

There is more information on configuring and using Pi-Star in this document. <u>https://amateurradionotes.com/images/1-Playing_with_Pi-Star.pdf</u>

Support:

MMDVM groups.io group: https://groups.io/g/OpenDV

Pi-Star support forum: https://forum.pistar.uk/

Pi-Star Facebook support group: https://www.facebook.com/groups/pistar/

Pi-Star Wiki: http://wiki.pistar.uk

ZUM Radio Facebook support group: https://www.facebook.com/groups/249802742395450/