Experience use of BlueDV for Windows with ThumbDV

(Version1.0.0.9522)

Shu JA3GQJ

Introduction

Unlike DVmega and DV4mini, ThumbDV is a USB stick (below photo) that can use the reflector of the D-Star system with only a personal computer without using a digital transceiver. Recently, BlueDV for Windows Beta version 1.0.0.9522 for ThumbDV was uploaded to http://software.pa7lim.nl/BlueDV/BETA/Windows/ (PA7LIM, software creator David's Web). Initially it was said to be BlueSpot and operated on its board and a set of DVmega with a cellphone. The name changed to BlueDV and a set of board and DVmega getting could be used on Windows PC. The version I experienced here is the best software for beginners' D-Star entrance experiences that can only be used with ThumbDV. It also supports DMR and Fusion. DVmega DVstick 30 is 100% compatible with ThumbDV.



Premise for use

- The software (Lhasa etc.) that decompresses the downloaded zip format compression software should be installed in advance on the Windows PC.
- My personal computer OS is a notebook type (64bit), a tablet type (32bit?) and Disktop type (32bit) is all Windows10. However, somehow the disc top type may not be usable because the received sound is interrupted in pieces. Be aware, the software may not work depending on the personality of personal computer and LAN environment.
- You have to have already acquired the 7 digit ID of CCS7. (For the method of obtaining, see APPENDIX at the end of the book)
- A radio is unnecessary but a microphone (about 1,000 yen) and a speaker has to be prepared for personal computers.
- Be aware that it is a beta version so changing versions. The latest version is 1.0.0.9541.

1. Download and install software

Open <u>http://software.pa7lim.nl/BlueDV/BETA/Windows/</u> \rightarrow

Click on BlueDV-09522-BETA.zip① with the opened page \rightarrow Click "Save"② displayed at the bottom of the page \rightarrow Download completed③. The download destination is Windows10 default folder "Download"④.

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\leftrightarrow \rightarrow O $\widehat{\omega}$ \bigcirc software.pa7lim.nl/8lueDV/8ETA/Windows/ \blacksquare \bigstar	声 & 必 …	
🌒 XLX569 Reflector Das 🔹 XLX595 Reflector Das 🔹 JA3GQJ Home Page 👶 前一台 [ABLENETVPS] , 🗳	Google 朝訳	
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-merzi: sottware.parim.ta	■ JairOxitAcl Internation 2011/04/06 22:42 50 ■ READATE Res 2018/07:16 14:35 443 ■ stahme 2018/07:05 22:19 - Apache 2.4 18 (Clound) Server at software parlim.nl Port 80 ③ BlueDV-09522-preBETA:zip のダウンロード 前完了しました。 ■ ステレーン・ 日本ののでのでのでのでのでのでのでのでのでのでのでのでのでのでのでのでのでのでの	×

Unzip the BlueDV-09522-BETA.zip⁽⁵⁾ of the folder "Download"⁽⁴⁾ with the decompression software of Lhasa etc to generate the file BlueDV-09522-BETA (Windows Installer Package)⁽⁶⁾.



In my case, the file⁶ was created in the folder BlueDV-09522-BETA on the desktop, so clicking on that file displayed the following screen.

Click "Detailed information", then open the screen on the right and I click the "Execute" button.



Then "User Account Control" pops up and installation starts with clicking "Yes" 8.

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C:¥Users¥scjo3¥Desktop¥ł preBETA¥BlueDV-09522-pr 発行元: 不明 ファイルの入手先: このコンピューター.	3lueDV-09522- reBETA.msi 上のハード ドライブ
詳細を表示 8	
はい	いいえ

Next "Welcome to the BlueDV Windows setup Wizard" $) \rightarrow$ "Select installation Folder" (10) "Confirm installation" (11) \rightarrow As the process progresses, the screen pops up. After clicking

"Next" on each screen, a progress bar is displayed in "Installing BlueDV Windows" $\textcircled{D} \rightarrow$ "Installation Complete" D pops up \rightarrow Click "Close" D button \rightarrow Icon D is created on the desktop and installation is completed.

妃 BlueDWindows — 🚬 🗆 🗙	🛃 BlueDWindows – 🗆 🗙
Welcome to the BlueDVWindows Setup Wizard (9)	Select Installation Folder
The installer will guide you through the steps required to install BlueDVW/indows on your computer.	The installer will install BlueDVWindows to the following folder. To install in this folder, click: "Next". To install to a different folder, enter it below or click "Browse".
	Eolder: C#Program Files#BlueDV#BlueDVWindows# Disk Cost
WARINING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.	Install BlueDVWindows for yourself, or for anyone who uses this computer: O Everyone ④ Just me
Cancel < Back Next >	Cancel < Back Next >
BlueDVWindows − ×	🛃 BlueDWindows - 🗆 🗙
Confirm Installation []	Installing BlueDVWindows (12)
The installer is ready to install BlueDVW indows on your computer.	BlueDVW/indows is being installed.
Click "Next" to start the installation.	-
	Please wait
Cancel < Back Next>	Cancel (Back Next)
褶 BlueDWWindows — ×	
BlueDVW/indows has been successfully installed.	
Click "Close" to exit.	(15)
	BLUE
	DV
	8
Please use Windows Update to check for any critical updates to the .NET Framework.	RhupV
$\overline{\Omega}$	Bideby
Cancel < Back Close	

2. Confirm software installation destination

There is a folder BlueDV(1) in the Program Files of the C drive, and furthermore a folder BlueDVWindows(2) is generated. BlueDVWindows executable file BlueDV.exe(3) is in it. BMhosts.txt(4) is a list of Brandmeister. Dmrid.csv(5) is a 7 digit ID list of CCS 7 and JA is allocated from 4400000.

Since the most important file Update DSTAR hosts can not be found, you can not add and change the reflector yourself.



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$\leftarrow \rightarrow \cdot \uparrow$	> PC > Acer (C:) >	Program Files > BlueDV > BlueDVWi	ndows > 🗸 🗸	C BlueDVWindow	rsの検索 ,P
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3. Confirm COM port

Check whether COM port recognizes ThumbDV by opening Device Manager (see "How to open" APPENDIX at the end of this page). In this example, COM3 is the port that recognized ThumbDV.



4. Start up software

Confirm that the COM port recognizes ThumbDV and click on the desktop icon then the control panel BlueDV for Windows (below figure) pops up. Make sure Firmware "AMBE 3000 R" is displayed on the screen.



When ThumbDV is not recognized, "Not detected" is displayed there.

5. Setting before use

Click the "SERIAL" button on the control panel BlueDV for Windows \rightarrow Blue color turns White \rightarrow Firmware display is hidden (*) \rightarrow Select the "Menu" tag \rightarrow Click "Setup" \bigcirc \rightarrow Open the setting screen \bigcirc .



5.1 Setting items

A) <u>General</u> flame

- •Your Call: Input your call sign
- Serial Port Radio : It differs depending on personal computer for automatic recognition, but in this example it is COM3.
- $\boldsymbol{\cdot}$ Save QSO Log : It may be the default.
- RX/TX Color : When you put a check mark, the color of the screen changes when sending and receiving.
- Invert RX/TX screen : With the check mark, the color of the screen is red on transmitting, green on receiving and vice versa when there is no check mark.
- Frequency : Since DVmega is not used, it can be the default number.
- Mode Time : Default OK. However, since it depends on a personal computer, adjustment may be necessary afterwards ...
- DVMEGA power : If DVMEGA is not used, the set value can be the default.
- Latitude,Longitude : Enter latitude and longitude of your QTH, (+) is probably north latitude and east longitude, (-) is south latitude and west longitude.

- Always on top : To show the control panel always at the top of the screen, put a check mark.
- Language : Since domestic transceivers are all displayed in English, it is recommended to choose English here as well.

B) <u>DStar@flame</u>

- DSTAR Module : Default D
- Enable at start : Put a check mark.
- APRS : Default
- Default reflector : Leave the default and not connect anywhere at startup.

C) <u>DMR </u>5flame

- DMR ID hotspot : Enter the 7 digit ID of CCS 7 obtained by referring to the APPENDIX at the end of the book.
- DMR ID simple : Enter the same value as DMR ID hotspot.
- \cdot QRG : Default
- Enable at start : Tick a check mark
- DMR type : Three types of BM, DMRPLUS, XLXDMR can be selected in the pull-down menu. I select and set BM here.
- No inband data : Default

D) <u>Brandmeister 6 flame</u>

- DMR Master : Select TG (talk group) from the pull-down menu. I select and set 3108 US here.
- Master Password : It is set to the default passw0rd. I can now use Brandmeister DMR. There is a list called TG (talk group) equivalent to a module such as XLX reflector in the pull-down menu.

E) <u>DMR+⑦flame</u>

Select desired talk group in Master's pull-down menu. The right (A) is the contents (list) of Brandmeister 's pull down menu and (B) is the contents (list) of DMR + pull down menu.

F) <u>FUSION</u> <u>Sflame</u>

Since I do not use, the setting remains the default.

G) <u>AMBE (This is important</u>)

- Use AMBE: Be sure to add a check mark in order to recognize ThumbDV.
- Serial port : Enter the same number as the Serial Port Radio of the General 3 frame (here, COM 3).
- DMR ID : Enter the 7 digit ID of CCS 7 obtained by referring to the APPENDIX at the end of the book.
- Baud rate : Select and set the baud rate 460800 or 921600 from the pull-down menu.
- Use AMBE serve : Leave as default
- Hosts/IP, Port : Leave as default
- Start/Stop Beep : With the check mark and sound a beep when successfully received. If

Greek Network 🛛 🗸 🗸	3103 US	~
GreekNetwork EATRKG-Master FRANCE_VYELINES DMR-PT-Zone3 DL-Niedersachsen DL-NORD FranceTest2 DL-RUHRGEBIET XLX018 France_Sud-Est Luxembourg CAN-BeauharnoisB France_Eorins Master-USA-NE-V DL-Franken-A23-H CH-Switzerland DL-HamNet UK-South EA-NAVARLIK DL-Hotspots DL-OWL	2221 IT 2222 IT 2262 RO 2302 CZ 2342 GB 2381 DK 2401 SE 2421 NO 2421 NO 2421 NO 2421 NO 2421 NO 2502 RU 2502 RU 2502 PL 2602 PL 2602 DE 2622 DE 2622 DE 2622 DE 2622 DE 2622 PT 2721 IE 2841 BG 3021 CA 3101 US 3102 US	^
Italys-TuscanyServ EA-Distrito-2 BULGARIA EA-GLOBAL-MAST DL-Aalen BelgiumDongles Brazil EA-Distrito-4 EA-RC-Veleta	3103 US 3108 US 3341 MX 4251 IL 4501 KR 5021 MY 5051 AU 6551 ZA 7141 PA	~

(A)

(B)

you become accustomed to the operation and become harsh, remove the check mark. • Kill timer(min) : You can set a transmission time of up to 5 minutes.

• DSTAR text : Set the characters displayed on the partner side.

This completes the setting. Click "Save"⁽¹⁾ (figure on page 5) to close the screen. Since I don't use radio, the PTT keying⁽¹⁾ frame under the AMBE frame is default state. Although the sound card is automatically selected by default, you can also select the sound card with the AMBE tag of the control panel BlueDV for Windows in the figure below. If you can not hear the received sound or the sound has not reached the other party, It is subject to check.

lenu Update	AMBE About	Pefinition Au •		By David P/	C/LIM Version 1.0	0.9522
IFGAL	Frequency DMR master CALL NAME INFO IDLE	Firmware Dest TG Status		Lastheard	AMBE BM lookup Call Name	APPS chat Mode
	DMR Call Status Not Connected	DSTAR Call Status Not Linked	FUSION Call Status Not Linked	DS	TAR	AMBE3000

5. Update data

After complete setting, open the Update tag(1) and update the data of D-Star hosts, call database, DMR master. Especially DMR master update is essential for experiencing DMR with XLX reflector.

RRAL Update DAR masters Prequency PR master Dest TG BER R CALL Update AMBE About	Lastheard	AMBE Call	BM lookup Name	APRS chat
CALL Update AMBE About				
INFO				

<u>Update of D-Star hosts(2)</u> Just click "Yes" on the first popup screen and click "OK" on the next popup window to finish. In addition, because the screen with three "OK" buttons is displayed overlapping, click the button in order from the top.

Download DSTAR hosts files	×	×	×
Do you want to download and overwrite your DSTAR hosts files.	Downloaded : DCS_Hosts	Downloaded : DExtra_Hosts	Downloaded : DPlus_Hosts
はい(Y) いいえ(N)	ОК	ОК	ОК

<u>Update of call database</u> Just click "Yes" on the first popup screen and click "OK" on the next popup screen.



<u>Update of DMR master</u>($\underline{4}$) Just click "Yes" on the first popup screen and click "OK" on

the next popup screen.

Download Brandmeister & XLX DMR master database	×	×
Do you want to download and overwrite your Brandmeister master AND XLX DMR database.	Downloaded : XLX DMR master database	Downloaded : Brandmeister master database
はい(Y) いいえ(N)	ОК	OK

Next, it is necessary to quit the software once with "Exit"⁵ of the control panel BlueDV for Windows.

				By D	lavid PA7LIM	Version 1.0.0	19522
SERIAL	Frequency DMR master	Firmware Dest TG	LISTENING BER	Las	theard AMBE we Call	BM lookup Name	APRS chat Mode
DMR	CALL						
DSTAR	NAME						
USION		Status	TX RX				

6. Restart software

Click on the desktop icon again after setting and updating the data \rightarrow soft start \rightarrow control panel BlueDV for Windows (1) popup. On the screen below SERIAL (2) is ON (the left half is blue) \rightarrow Operation is normal when AMBE 3000R (3) is displayed in Firmware.

When resetting items (especially DMR Type change) after starting use SERIAL² must be set to OFF (the left half is white), the SETUP function of the MENU tag will not work and the setting screen will not open.

™ BlueDV for V Menu Updat	Vindows			×
2				By David PA7LIM Version 1.0.0.9522
DMR DSTAR FUSION	Frequency DMR master CALL NAME INFO IDLE	Firmware AMBE3000R (Dest TG	BER	Lastheard AMBE BM lookup APRS char Time Call Name Mode
	DMR Call Status Not Connected	DSTAR Call Status Not Linked	FUSION Call Status Not Linked	DSTAR AMBE3000

Next, click the DMR button (4) and DSTAR button (5) (left half blue) and the following items will be displayed.

- \cdot Reflector selection pull-down menu 6
- · Module selection pull-down menu \bigcirc
- \cdot Link, Unlink button (89)
- \cdot Protocol (REF, DCS, XRF, XLX) selection radio button 10



DMR master ① shows the data of Brandmeister and DMR + selected in the previous setup. When XLXDMR is selected, nothing is displayed. There are the following 11 items in the status screen ② with large letters and small letters together.

CALL

NAME

INFO

JE2ANH

KUNI

4402028

- CALL : A call sign of the opposite station, a use rig, and the like are displayed.
- NAME : The name of the opposite station is displayed.
- $\boldsymbol{\cdot}$ INFO : Information on the opposite station (QTH, DMR ID, etc.) is displayed.

<u>Small letters</u>

- Frequency : The frequency of DVmega set on page 6 is displayed.
- DMR master : DMR master other than XLXDMR set on page 6 is displayed.
- Dest TG : When BM or DMR + is used, the talk group being used is displayed, and it seems that the DMR ID is displayed when it is used XLXDMR. Dest is Destination.
- IDLE : For D-Star transmission / reception, character "Idl" changes to DSTAR display in red, and character "IDLE" changes to DMR display in red when transmitting / receiving DMR. Both sending and receiving are in standby while character "IDLE" is displayed.
- Firmware : "AMBE 3000 R" is displayed here as ThumbDV product symbol (description). (In the case of DVmega, it is displayed as DVMEGA_NR 3.07 etc.)
- LISTENING : Regardless of D-Star or DMR, the display changes to TX at transmission and RX at reception.
- BER : Short for bit error rate. It seems that it represents the ratio of data bit missing during DMR transmission.
- Status : It means the state. When None is displayed or nothing is displayed, the operation is normal. If ThumbDV is not installed, "Can not open COM port" is displayed here.



On Page 8, the screen on the screen 3 on the right of the status screen 2 changes with the four types of tags (Lastheard, AMBE, BM lookup, APRS chat). In addition, 4 at the bottom of the screen 3 is the DMR and D · Star changeover switch at the time of transmission, and 5 is the PTT switch. If you put a check mark in Mute spk 6, the sound of the speaker disappears.

· Space key of PC can be used instead of PTT switch (5.(Page 8)

(ALastheard tag : The communication time, call sign, name, mode (D-Star or DMR) are

displayed on the screen of the Lastheard tag. It seems that the registered name is displayed when acquiring the 7 digit ID of CCS 7. Clicking on the call sign opens QRZ.COM of the corresponding station.

.astheard	AMBE BN	1 lookup Al	PRS chat
Time	Call	Name	Mode
09:04 AM		Unknown	DSTAF
09:05 AM		Unknown	DSTAF
09:05 AM	PA1MBW	Piet	DMR
09:07 AM	KC1RX	Unknown	DSTAF
09:08 AM	AB3TY	Lawrence	DSTAF
MA 80:00	PD1HPB	Peter	DMR
MA 80:00	WN4SFC	Unknown	DSTAF
09:10 AM	VA3XEP	Unknown	DSTAF
09:11 AM	G1FXE	PgCam	DSTAF
09:13 AM	MOKWY	David	DSTAF
09:14 AM	MOKWY	David	DSTAF
09:14 AM	MOKWY	David	DSTAF
09:15 AM	VA3XEP	Unknown	DSTAF



 (\mathbb{B}) <u>AMBE tag</u>: On next page, There is a level indicator (\mathbb{T}) corresponding to S meter on the screen of this tag. The number 204 in the DMR reflector number entry column (\mathbb{B}) is the TG (talk group) of the DMR of the Netherlands selected by default. On the right side, $(\mathbb{9})$ is a button for switching between group (G) and individual (P) (in this example, default G). I have never used VOX. Below that there are speaker (skp) and microphone (mic) gain adjustment bar for the DMR and D-Star. I think that the adjustment is slightly critical in relation to the adjustment function of the PC's sound card. Clicking on this tag's help?

• When BM is selected in the setting Echo test can be done by entering 9990 in the DMR reflector number input field (17) and clicking the PTT switch (15) with the mouse or pressing the space key on the PC. However, in my case, echoes have not returned depending on the TG (talk group) to be selected.

QBM lookup tag : This screen seems to be a screen for specifying callsign and talk group and searching. Search results are reflected in ① of the AMBE tag.

DAPRS chat tag : Not confirmed use of this.

Lastheard	AMBE BM lookup	APRS chat	
Search cal	ı C		
Call	Name	DMR id	
Search Tal	keroup		
TG	Name		^
1	Local		
2	Local/Cluster		
8	Regional		
٥	Local or Reflector		~
	Click to select	ot!	



8. Reception

Reception is a dual watch of D - Star and DMR. Switch on page 18 4 can be either "D - Star" or "DMR". However, switching between the three modes of DMR (BM, DMR +, XLXDMR) requires rebooting of software after setting change in Menu tag \rightarrow Setup each time.

8.1 D-Star

Activate software \rightarrow turn on SERIAL button and DSTAR button (blue) \rightarrow confirm that D-Star, DMR selection pull-down menu (*) is DSTAR \rightarrow Reflector selection pull-down menu⁽⁷⁾ to select a module \rightarrow Adjust the speaker volume of the PC \rightarrow Click the Link button⁽⁸⁾ \rightarrow (There is an announcement to the effect that a female voice has connected) \rightarrow Receive standby⁽⁹⁾.



In this example, DMR is set to BM, 4401 JP in Setup, and DMR is automatically connected since it is selected. D-Star has selected XLX reflector (XRF).

In addi ion, the reception screen⁽¹⁾ when you put check mark on the RX / TX Color and Invert RXTX Screen in the previous setting and the reception screen⁽¹⁾ when the check mark is not added to RX / TX Color are different.(See below) You can see that the level meter⁽¹⁾ of the AMBE tag is operating. It seems that "CALL" shows the callsign of the partner station, "NAME" shows the name of the partner station etc when you registered in CCS7, etc. Information of the other station is displayed in "INFO".

The red "DSTAR" character under it was "Idle" when it was in the reception standby state. Furthermore, "Status None" on the right means that the reception status is good and there is no problem.



8.2 BM(Brandmeister) DMR

Select DMR Type as BM in the DMR frame (page 7) of the Setup screen, select DMR Master from the pull down menu (e.g. 3108 US), set it \rightarrow Restart the software \rightarrow Set the SERIAL button and the DMR button to ON (blue) \rightarrow Enter 9990 in the DMR reflector selection field of the AMBE tag \rightarrow Switch the group (G) and individual (P) switching to "P" \rightarrow Press the Space key on the PC keyboard to echo test ① Confirm that it will return ② (receive) \rightarrow wait for reception.



When you actually receive it, information on the other party's call sign etc. will be displayed (beep sound is heard) as follows. In the figure below, the left side is the screen when RX / TX Color is checked in the previous setting, and the right side is the screen when not check marked.



8.3 XLXDMR

Select DMR Type to XLXDMR in the DMR frame (6 pages) of Setup screen \rightarrow Restart software \rightarrow Turn DMR(1) and DSTAR(2) switch on the control panel BlueDV for Windows ON (blue) \rightarrow Select the DMR with the D-Star, DMR selection pull-down menu(3) \rightarrow Select the XLX reflector with the reflector selection pull-down menu(4) (for example, XLX 569) \rightarrow In DMR reflector number input field(5), decide one of 4001 to 4026 corresponding to modules A to Z of XLX reflector (input 4002 corresponding to module B, for example) \rightarrow switch DMR and D-Star switch(6) to DMR \rightarrow Car chunk \rightarrow wait for reception. By the way, XLXDMR can not echo test.

BlueDV for Window Menu Update A	ws MBE About				- 🗆 🗙
DMR XRF	569	Link Unlink		By David PA7LIM Version	1.0.0.9522
SERIAL Fr DMR DSTAR FUSION	requency R master ALL IAME NFO	Firmware AM8E3000R Dest TG		Lastheard AMBE BM lo	okup APRS chat
DMF	st.	DSTAR	FUSION	mic T -6	mic v 5
Call Stat	us Not Connected	Call Status Not Linked	Call Status Not Linked	Mute spk	AMBE3000

Received screen when check mark is on RX / TX Color in the previous setting.



Receive screen when check mark is not on RX / TX Color in the previous setting.



<u>Important</u> : Suppose XLX595 and XLX 569 were interlinked with module B. When you send from XLXDRM module 4002 of XLX 569, unmodulated signal is received by B module of XLX595 of D-Star. At this time, if you answer from B module of D-Star's XLX 595, that voice will be heard at module 4002 of XLX DMR of XLX 569. Therefore, when using XLXDMR it is important to check the interlink destination of the reflector. The XLX reflector can use 26 modules from A to Z. As domestically, modules A to D are mainly used for interlinks, so when using XLXDMR it may be better to use other modules.

9. Transmission

The operation method differs somewhat depending on whether it is sent with D-Star or DMR.

9.1 D-Star

In the reception standby state in the procedure of Section 8.1 "Receiving D-Star" on page 10, after confirming that the switch ① of D-Star and DMR is D-Star, press PTT② to send. Adjustment of microphone gain③ is somewhat critical as it relates to the sound card of PC. Make sure that the peak of the level meter's needle does not exceed 9 and get the report from the other station. VOX④ is not used because adjustment is critical.



When you check the RX / TX Color with the previous setting, the screen color turns red when sending \rightarrow "LISTENING" of the screen becomes TX⁽⁵⁾ \rightarrow PTT display changes to On Air⁽⁶⁾ and the transmission time⁽⁷⁾ is displayed below it.



Transmission screen when check mark is not on RX / TX Color in the previous setting.

-				
	Frequency DMR master 4401 JP	Firmware AMBE3000R Dest TG	TX BER	Lastheard AMBE BM lookup APRS chat
STAR	CALL J	A3GOJ GHUJIT	AMBE	44120 V JG
USION	INFO 4	403003		VOX UDMR Gain DSTAR Gain

9.2 BM(Brandmeister)DMR

In the reception standby state in the procedure of Section 8.2 "Receiving BM (Brandmeister) DMR" on page 11, switch the D-Star and DMR switch ① to confirm that DMR is set, then press PTT ② to send.

star \sim	XRF569 ~ A ~	Link Unlink O REI	F O DCS () XRF O XLX	By David PA7LIM Version 1.0.0.9522
	Frequency DMR master 4401 JP	Firmware AMBE3000R Dest TG	LISTENING BER	Lastheard AMBE BM lookup APRS chat
R	CALL			44120
TAR	NAME			
SION	INFO			VOX U
	IDLE	Status		spk 21 spk 4

When RX / TX Color is checked in the previous setting, the color of the screen will be the same as that of D-Star when BMDMR is sent but CALL and NAME will not be displayed (below figure). Note that microphone gain is different from D-Star and XLXDMR.

Transmission screen when check mark is on RX / TX Color in the previous setting.

≫ BlueDV for Menu Upda	Windows ste AMBE About					- 0	×
DSTAR \sim	REF030 ~ C ~	Link Unlink		XLX By (David PA7LIM Vers	ion 1.0.0.9522	
SERIAL	Frequency DMR master 4401 JP	Firmware AMBE3000R Dest TG	TX BER	tar b	theard AMBE BM	lookup APRS chat	-
DSTAR	CALL NAME				44 120 🗸	3	
FUSION	INFO 4 DMR s	403003 tatus	Ť		DMR Gain pk 21 ic -6	DSTAR Gai	in 5 5
	DMR Call Status Logged in to DMR	DSTAR Call Status Not linked	FUSION Call Status Not Linked		MR C	Dn AIR	

Transmission screen when check mark is not on RX / TX Color in the previous setting.

DSTAR ~	XRF569 V A V	Link Unlink O REF	ODCS	By David PA7LIM Version 1.0.0.9522
	Frequency DMR master 4401 JP	Firmware AMBE3000R Dest TG	TX BER 0.00%	Lestheard AMBE BM lookup APRS chat
STAR	CALL NAME			44120 🗸 🦷 🕅 🐨
JSION	INFO 4 DMR s	403003 tatus	TX RX	VX U DMR Gain DSTAR Gain spk U 21 spk U mic U -6 mic U
	DMR Call Status Logged in to DMR	DSTAR Call Status Linked to XRF569 A	FUSION Call Status Not Linked	

9.3 XLXDMR

In the reception standby state in the procedure of Section 8.3 "Receiving BM (Brandmeister) DMR" on page 11, switch the D-Star and DMR switch 1 to confirm that DMR is set, then press PTT⁽²⁾ to send. To change 26 modules from 4001 (A) to 4026 (Z), disconnect the previous connection with the unlink button ⁽³⁾ first, put the corresponding number in the module input field ⁽⁴⁾ and connect with the Link button ⁽⁵⁾ newly. Even if you change only the module number, the module before change remains set.



Transmission screen when no check mark at RX / TX Color in the previous setting.

BlueDV for Menu Upda	Windows ate AMBE About	(7)	- • ×
DMR ~	XLX569 v	Link Unlink		日本語の翻訳はJH1TWXとJA1COUに感謝します。 By David PA7LIM Version 1.0.0.9522
SERIAL	Frequency DMR master	Firmware AMBE3000R Dest TG	TX BER 0.00%	Lastheard AMBE BM lookup APRS chat
DMR	CALL NAME			· · · · · · · · · · · · · · · · · · ·
FUSION		4403003 Status	TX RX	VDX U B DMR Gain DSTAR Gain 21 spk 4 mic 1 -5 mic 1 5
	DMR Gall Status Logged in	DSTAR Call Status Not linked	FUSION Call Status Not Linked	DMR On AIR

Even when XLXDMR is transmitted, the screen will be red as the D-Star, but CALL and NAME will not be displayed. Note that microphone gain[®] is different from D-Star and BMDMR. How to use the switch[®] to switch between individual (P) and group (G) clears its meaning in the process of using XLXDMR. The announcement from the connection point does not return like BMDMR. However, as shown in the figure below, after the small screen under the big screen turns green, the call sign of the local station is displayed and then it becomes the screen waiting for reception (page 11 downward).



At this time, your call sign is recorded in the dashboard list of the connected XLX reflector. (The figure below, connect with module B, pay attention to Protocol)

TAKATSUKI	MULT ange the XLX56	I PRO 59 v2.2.2 - C	TOCOL Dashboard v2.3.9	GATE	WAY REFL	ECTOR :: 99 days 05:49:35			JI.3ZH XLX:569	D-Star Ham (IIII 아이 분류 Takatsuki Osi	Club JL3ZII 옥타철다무 aka JAPAN
Users / Modules	Repeaters /	Nodes (1	Peers (9)	Refle	ctorlist D-Star liv	ve Traffic statist	ics リフレ	クター間	影设 QSL Card	リンク・	ノード局開設
		# Flag	DV Station	Band	Last Heard	Linked for	Protocol	Module	IP		
		1	JA3GQJ-B	70cm	28.07.2018 13:58	0 days 00:04:05 s	DMRMmdvm	В	•.•.•.111		

10. Relationship between D-Star and DMR

Please note, the following is a memorandum of my understanding that poor knowledge of that field. Since the protocol transcoding between various protocols is handled separately from the audio signal that it places on the XLX server, the same unmodulated signal as the radio can be received between D-Star and DMR. Audio signals in each protocol are handled separately by the AMBE server (transcoder). Therefore, XLX reflectors that do not have an AMBE server (transcoder) can not convert to audio signals compatible with each other's protocols, so QSO between D-Star \Leftrightarrow DMR can not be done. However, I think that QSO can be done if the mode is the same (comrades of DMR or D-Star). This time, when I send the module of XLX 569 (DMR) alternately according to the module of XRF569 (D-Star), I know that they are receiving each other, but I experienced that I can not hear the voice.

Schematic diagram of only sound processing

• I attaching ThumbDV on USB terminal of Windows PC and enjoy D-Star and DMR with software called "BlueDV for Windows".



Since AMBE server (transcoder) was constructed with 2 ThumbDVs and Raspberry Pi, cross-communication between D-Star and DMR is now possible on the XLX595 reflector.
Search the website for the meaning of transcoding.

11. List of D-Star reflectors and DMR masters

The original of the D-Star reflector and DMR master list to be downloaded with "BlueDV for Windows" are registered in the following URL.

<u>h t tp://xlxapi.rlx.lu/api.php?do=GetReflectorList</u> <u>http://xlxapi.rlx.lu/api.php?do=GetReflectorHostname</u> <u>http://xlxapi.rlx.lu/api.php?do=GetXLXDMRMaster</u> <u>http://xlxapi.rlx.lu/api/exportdmr.php</u>

API (Application Programming Interface)

When examined on the website, the function of a certain computer program (software) It explains the rules that define procedures, data formats, etc. to call and use data to be managed from other external programs.

Conclusion

- \cdot DMR + has been omitted since it has not been received at this time.
- In the previous version, the color of the screen being received was red, while it was transmitting, it became green, and the display of "LISTENING" changed to "RX" during transmission and "TX" during reception, which made us feel discomfort. However, in this version it has become possible to choose by setting.
- The QSO of XLXDMR comrades is very stable.

Shu As of July 28, 2018

APPENDIX

1. Acquisition of CCS 7 number

"CCS" is short for "Callsign Communication System".

In Japan it was not familiar, but recently it has become necessary to set up the dongle software to use DCS, REF, XRF reflector as the opening of XRF reflector progresses.

To obtain the CCS 7 number, register it in the following URL. If you do not know well, send mail to <u>sc201711@nifty.com</u>.

https://register.ham-digital.org/

🖷 📲 register.ham-o	gital.org \times + \vee		-		×
\leftrightarrow \rightarrow O \Leftrightarrow	C register.ham-digital.org	· 🗠 🖈	= h	ß	
XLX569 Reflector & XL	95 Reflector 📽 JA3GQJ Home Page 🔔 phpMyAdmin 🦄 Google 祖訳 🛐 (71 unread) - 🔛	Opinion comparing 🔥 isserver.net - 🔝 ambe@nw			~
Registratio	in page for Digital voice Services.				
This is a central r	egistration system for different Digitale Voice services aro	ound D-Star and DMR for Amate	ur Ra	dio.	
You may register	CCS/DTMF, DMR-IDs and D-Star-Registrations from one	platform.			
Welcome!					
 List of DMR-/0 	CS7-ID approvals of last 30 days: click here				
List of register	ed DMR-/CCS7-Users: click hier				
 List of register 	ed DMR-Repeaters: <u>click hier</u>				
Information abou	CCSZ dick biorl				
Step 1					
	es for an individual callsian (including private hotspots ar	nd private repeaters)			
O Register servi	es for a public unattended station (repeater/gateway with	h special license to run 24/7 un	attand	ted)	
e negister ser n			acconn	aca)	
Callsign:					
OK Reset					

2. How to display Device Manager

Right-click on the window type icon in the lower left corner of the disc top screen (1) \rightarrow Select "Device manager" (2) on the popup window \rightarrow Device manager opens (3) \rightarrow Click "Port (COM and LPT)" (4)



畫 デバイス マネージャー	-	(
ファイル(F) 操作(A) 表示(V) ヘルプ(H)		
> 🚽 ネットワーク アダプター		 ^
> 🔜 ヒューマン インターフェイス デバイス		
$ = \pi - \gamma J \mu T \Lambda 1 \Lambda $		
Silicon Labs CP210x USB to UART Bridge (COM3)		2
Silicon Labs CP210x USB to UART Bridge (COM4)		
USB Serial Port (COM5)		
> 🕕 マウスとそのほかのポインティング デバイス		
> 💻 E_9-		
> 🏺 ユニバーサル シリアル バス コントローラー		
> 酉 印刷キュー		~

3. When first run the software

In "Windows Security Important Warning" displayed when starting the software for the first time, click the "Allow Access (A)" button.



The end