

AMBE-3000 USB



INSTALLATION DU SERVEUR AMBE SUR RASPBERRY PI VERSION 1.0

Création de la carte SD RPI

- ▶ Télécharger la version RASPBIAN STRETCH LITE
- ▶ <https://www.raspberrypi.org/downloads/raspbian/>
- ▶ Copier l'image RaspBian sur votre micro carte SD
- ▶ Positionner sur la racine le fichier « wpa_supplicant.conf » avec les bons paramètres pour établir la connexion Wifi a votre box.
- ▶ Positionner sur la racine un fichier « ssh » pour valider la connexion SSH
- ▶ Faire la mise à jour du logiciel (`sudo apt-get update` et `sudo apt-get upgrade`)
- ▶ Insertion de la micro carte SD dans votre RPI
- ▶ Connexion de la clef USB AMBE-3000
- ▶ Reboot du RPI « `sudo reboot` »

Mise en place du logiciel DV3000

- ▶ Télécharger le logiciel DV3000.zip avec le lien ci-dessous
- ▶ <https://www.grupporadiofirenze.net/wp-content/uploads/2017/04/DV3000.zip>
- ▶ Transférer le fichier zip dans le répertoire « /home/pi »
- ▶ Extraction des fichiers zip avec la commande « unzip DV3000.zip »
- ▶ Se positionner dans le répertoire « cd DV3000 »
- ▶ Compilation du software « sudo gcc -o AMBEserver AMBEserver.c »
- ▶ Vérifier que la clef USB AMBE-3000 est connectée sur le RPI

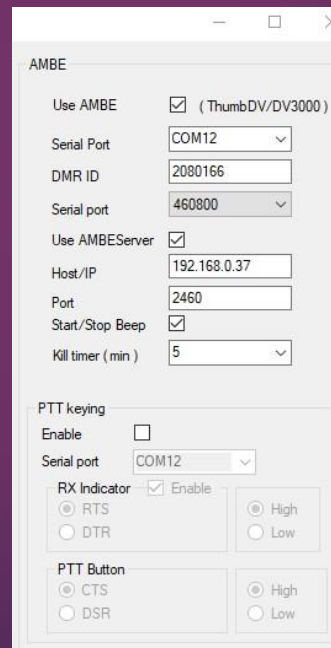
Démarrage du logiciel DV3000

- ▶ Vérification de la clef USB
 - ▶ la nouvelle version de chiavina USB nécessite la vitesse de transmission 460800
- ▶ Lancement du serveur AMBE « `sudo ./AMBEserver -d -s 460800 -x` »
- ▶ Réponse du serveur :

```
pi@raspberrypi:~/DV3000 $ sudo ./AMBEserver -d -s 460800 -x
AMBEserver: Starting...
Baud 460800
opened /dev/ttyUSB0 460800
AMBEserver: Opened serial port /dev/ttyUSB0 at 460800 bps.
pi@raspberrypi:~/DV3000 $ AMBEserver: Initialized AMBE3000R version V120.E100.XXXX.C106.G514.R009.B0010411.C0020208.
opened the UDP socket on port 2460
AMBEserver: Listening for connections on UDP port 2460.
```


Modification BlueDV for Windows

- ▶ Dans le setup du BlueDV il faut modifier la partie AMBE
 - ▶ Attention on peut utiliser DMR et DSTAR pas de FUSION
- ▶ Valider Use AMBEServer
- ▶ Positionner @IP
- ▶ Le port
- ▶ Validation des mises a jour



Visualisation du trafic sur le serveur

- ▶ Dans le fenêtre de lancement on visualise le trafic du serveur AMBE

```
pi@raspberrypi: ~/DV3000
AMBEserver: Opened serial port /dev/ttyUSB0 at 460800 bps.
pi@raspberrypi:~/DV3000 $ AMBEserver: Initialized AMBE3000R version V120.E100.XXXX.C106.GS14.R009.B0010411.C0020208.
opened the UDP socket on port 2460
AMBEserver: Listening for connections on UDP port 2460.
Received Socket data packet with type 0 and length 1:
0000: 61 00 01 00 36 *a...6*
Received Serial data packet with type 0 and length 4:
0000: 61 00 04 00 36 05 00 EC *a...6...*
Received Socket data packet with type 0 and length 7:
0000: 61 00 07 00 34 05 00 00 07 00 00 *a...4.....*
Received Serial data packet with type 0 and length 1:
0000: 61 00 01 00 39 *a...9*
Received Socket data packet with type 0 and length 3:
0000: 61 00 03 00 05 10 40 *a....@*
Received Serial data packet with type 0 and length 2:
0000: 61 00 02 00 05 00 *a.....*
Received Socket data packet with type 0 and length 13:
0000: 61 00 0D 00 0A 01 30 07 63 40 00 00 00 00 00 00 *a.....0.c@.....*
0010: 48 *H*
Received Serial data packet with type 0 and length 2:
0000: 61 00 02 00 0A 00 *a.....*
Received Socket data packet with type 0 and length 1:
0000: 61 00 01 00 30 *a...0*
Received Serial data packet with type 0 and length 11:
0000: 61 00 0B 00 30 41 4D 42 45 33 30 30 52 00 *a...0AMBE3000R.*
Received Socket data packet with type 0 and length 1:
0000: 61 00 01 00 36 *a...6*
Received Serial data packet with type 0 and length 4:
0000: 61 00 04 00 36 05 00 EC *a...6...*
```

```
pi@raspberrypi: ~/DV3000
0000: 61 01 42 02 00 A0 00 04 00 00 00 01 00 06 FF FF *a.B.....*
0010: 00 01 FF FD 00 00 00 03 00 01 00 03 00 00 00 00 *.....*
0020: 00 00 00 03 00 01 00 03 FF FF FF FD FF FF FD *.....*
0030: FF FF FF FD 00 01 00 01 FF FF FF FF 00 01 00 03 *.....*
0040: 00 00 00 00 00 01 00 00 FF FD 00 01 FF FC FF FD *.....*
0050: 00 03 FF FA 00 00 FF FD 00 00 00 FF FF 00 03 *.....*
0060: 00 00 00 04 FF FD 00 03 00 01 FF FF 00 03 FF FF *.....*
0070: 00 03 FF FF 00 00 FF FF 00 00 00 00 01 00 01 *.....*
0080: 00 03 00 03 FF FF 00 07 00 00 00 04 00 04 00 00 *.....*
0090: 00 03 00 00 00 01 FF FF FF FF FD 00 01 FF FD *.....*
00A0: FF FC FF FA FF FD FF FD FC 00 01 FF FA 00 00 *.....*
00B0: 00 01 00 01 00 04 FF FD FF FD FC FF FD 00 03 *.....*
00C0: FF FC FF FF FF FC FF FD 00 00 FF FC 00 03 FF FC *.....*
00D0: 00 06 00 01 00 00 06 00 03 00 07 00 03 00 07 *.....*
00E0: 00 01 00 07 00 03 00 04 00 07 00 01 00 06 FF FD *.....*
00F0: 00 01 FF FC FF FC FF FF FF FD FF FC FF F9 FF FC *.....*
0100: FF FA FF FD FF FD 00 03 00 01 00 01 00 01 00 00 *.....*
0110: 00 04 00 00 00 00 FF FD 00 03 00 00 FF FF 00 01 *.....*
0120: FF F9 00 03 FF FD FF FD 00 01 FF FC 00 01 FF FF *.....*
0130: 00 00 00 03 00 04 00 06 00 04 00 04 00 03 00 03 *.....*
0140: 00 03 00 01 00 01 *.....*
Received Socket data packet with type 0 and length 1:
0000: 61 00 01 00 36 *a...6*
Received Serial data packet with type 0 and length 4:
0000: 61 00 04 00 36 05 00 EC *a...6...*
Received Socket data packet with type 0 and length 1:
0000: 61 00 01 00 36 *a...6*
Received Serial data packet with type 0 and length 4:
0000: 61 00 04 00 36 05 00 EC *a...6...*
```

BlueDV for Windows interface. The main display shows a call log with the text "CALL NAME DMRID" and "IDLE". The status is "Connected to AMBEserver". The interface includes a menu bar (Menu, Update, AMBE, About) and various control buttons for SERIAL, DMR, DSTAR, and FUSION. The bottom status bar shows "Call Status Not Connected" for DMR, DSTAR, and FUSION.

BlueDV for Windows interface. The main display shows a call log with the text "CALL NAME DMRID" and "IDLE". The status is "Connected to AMBEserver". The interface includes a menu bar (Menu, Update, AMBE, About) and various control buttons for SERIAL, DMR, DSTAR, and FUSION. The bottom status bar shows "Call Status Logged in to DMR" for DMR, "Call Status Linked to DCS033 C" for DSTAR, and "Call Status Not Linked" for FUSION.

Arrêt du logiciel DV3000

- ▶ Pour arrêter le logiciel DV3000 il faut une connexion SSH sur le RPI
- ▶ On arrête le blueDV for Windows
- ▶ Avec la connexion SSH on recherche le PID du AMBEServer avec la commande « `ps -edf | grep -i ambe` »

```
pi@raspberrypi:~/DV3000 $  
pi@raspberrypi:~/DV3000 $ ps -edf| grep -i ambe  
root      639      1  4 19:36 ?        00:01:31 ./AMBEserver -d -s 460800 -x  
pi        659     553  0 20:14 pts/0    00:00:00 grep --color=auto -i ambe  
pi@raspberrypi:~/DV3000 $
```

- ▶ Puis on tue le process correspondant avec la commande exemple
 - ▶ « `kill -9 639` »

Fin du document

