

## Emission 25Ks to 2Ms:

### GENERATE FLUX IPTV with OBS or vMIX + FFMPEG + NVIDIA GPU or INTEL CPU

#### ➤ Step by step explanation (Tested on Portsdown)

Hello,

You have to "search" everywhere on the NET to find the explanations and make the choice of software and equipment to use for the DATV program. I wanted to summarize here for you a little explanatory tutorial to generate an MPEGTS stream usable with Portsdown and LimeSDR mini but also any broadcast channel accepting an IPTV input: Express DVB Transmitter or Plutot (not tested)

Here is a version of script successfully tested on Portsdown with LimeSDR mini

Inspired by the scripts found on the BACT Forum I created this script to generate a TSMPEG stream in H264 or H265 for the different types of BVBS DVBS2 modulation in 4, 8, 16, 32 PSK

For this, I bought a Graphics card for my NVIDIA GTX 1660 pc

FFMPEG can use GPU processors from NVIDIA cards to compress to H264 and H265

Thanks to G4EML I have also adapted the script for recent INTEL processors which support H265 encoding for FFMPEG

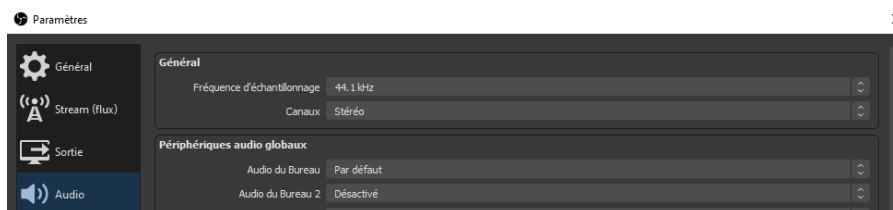
I have not been able to test with other models, please give me your feedback during your testing.

#### 1 / *INSTALL OBS or vMIX*

<https://obsproject.com/>      <https://www.vmix.com/>

Many tutorials are available for its use.

With OBS here are just the parameters to apply (will be grayed out with VirtualCam started)

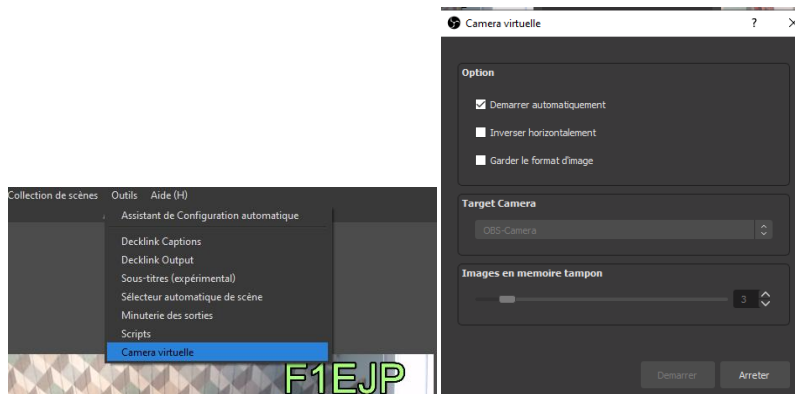


#### 2 / *With OBS Install VirtualCam*

<https://obsproject.com/forum/resources/obs-virtualcam.539/>

Google is my friend for the latest versions and installation explanations.

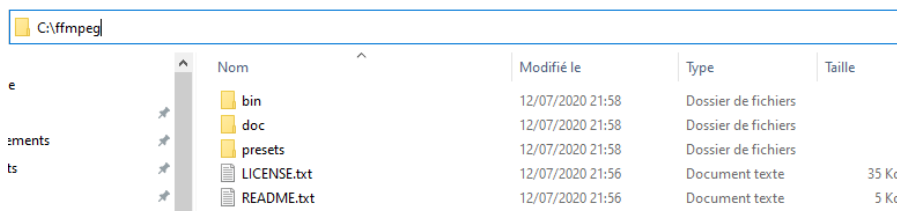
On OBS no more need to use the recording or streaming buttons, simply go to "Tools" then "Virtual Camera" and check "Start automatically"



### 3 / INSTALL FFMPEG on Windows

There are several versions, I will copy you the one used.

Just unzip it and copy the ffmpeg folder directly to c:



With this script this is enough, no need to add a Windows environment variable.

### 4 / SCRIPT -F1EJP-OBS-VMIX-vx.xx.bat

Place the script on the Windows desktop



Edit the start script with the Windows notepad (right click> modify)

- Choose GPU for encoding (NVIDIA card or INTEL processor)
- Choose the source: OBS or vMIX software
- Change the IP of your transmitter
- Change your callsign
- Change the frame rate for countries to 30 frames / second

@echo off

rem OBS with Virtual CAM installed or VMIX to IP Stream

rem By Dominique F1EJP creation of the script inspired by the dave script G8GKQ

rem V01.20

:START

rem Set coding NVIDIA GPU=1 or Processor INTEL GPU=2

rem Entrez Codage coding NVIDIA GPU=1 or Processor INTEL GPU=2

rem -----

set GPU=1

rem Set SOURCE=OBS or (ou) SOURCE=VMIX

rem -----

set SOURCE=OBS

rem Set the IP address of your Transmitter here

rem Entrez IP de l'emetteur

rem for test with VLC

rem set ip=230.0.0.10:10000

rem -----

set ip=192.168.0.30:10000

rem Set your callsign here

rem Entrez votre indicatif

rem -----

set callsign=F1EJP

rem Default frame rate - Frequence frame par default

rem -----

set Fi=25

➤ That's all !

## 5 / Use

- Launch OBS
- Launch the script
- Select the proposed parameters and validate
- You must view all the parameters before launching

```
For DVB-S2 8PSK at 35 kS and FEC 3/4
Netto data rate: 77900 b/s or 77 kb/s

With a headroom of 25
video bitrate set is 55920 b/s or 55 kb/s

Size of video 426x240
Audio birate set is 8000 b/s

Value for compression NVIDIA is 20920 b/s or 20 kb/s
Appuyez sur une touche pour continuer...
```

- When the flow is started you can start the transmitter with the same parameters

I spent a lot of hours understanding the different parameters, adapting the bitrate calculation formula in DVBS2 and trying to optimize the compression parameters to go down to very low bitrates in order to finalize this script.

Thank you for all your suggestions and feedback!

I will soon be equipped on QO100 to test with you and I am regularly on the chat:

<https://eshail.batc.org.uk/wb/>