

FreeStreamCoder

Generate an MPEG-TS stream UDP with OBS or vMIX or already encoded stream over IP

After a first batch version Inspired by the scripts found on the BACT Forum I made this little software to generate a TS-MPEG stream (protocol UDP) in H264 or H265 for the different types of BVB-S DVB-S2 DVB-T modulation .

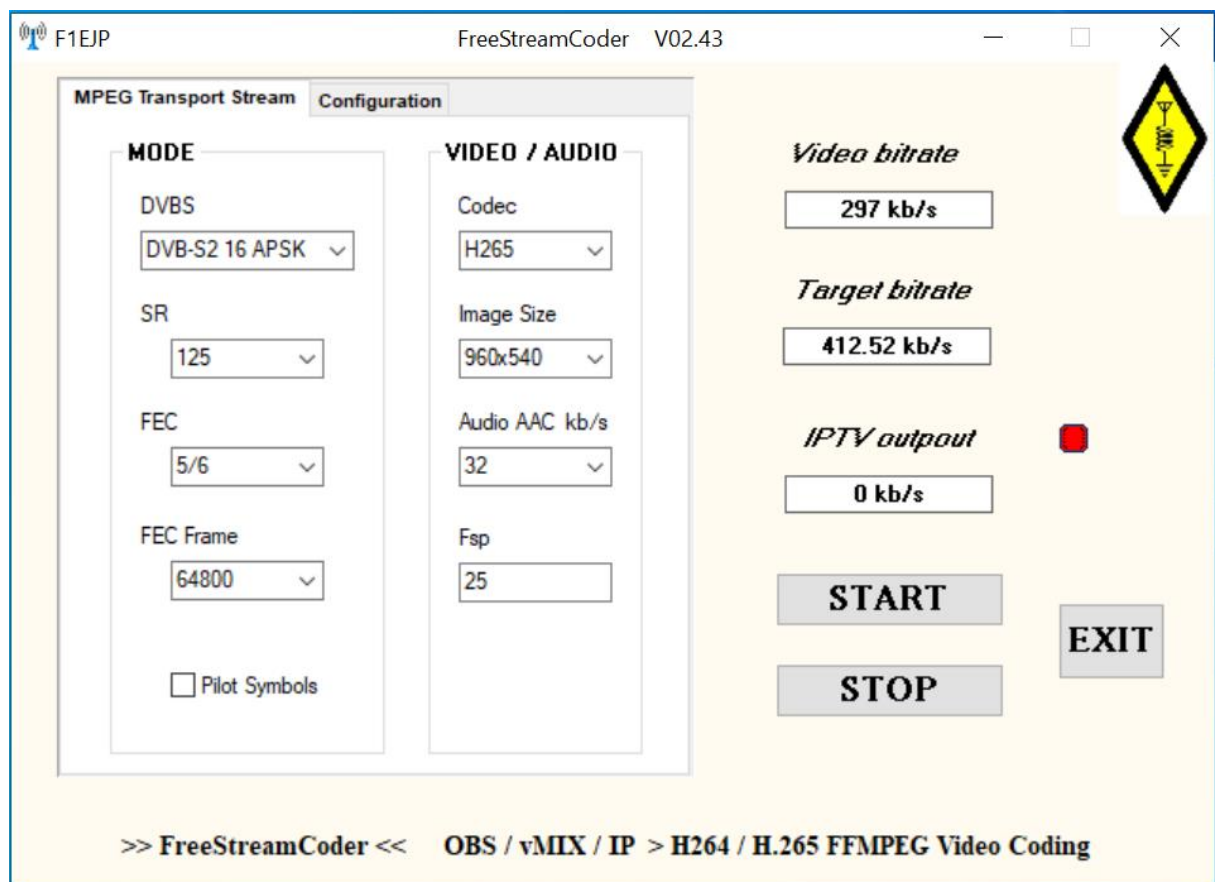
I would like to thank Jean-Pierre F6DZP for his advice and help with the development.

- FreeStreamCoder uses FFMPEG and can use GPU processors from NVIDIA cards or recent INTEL processors to compress to H264 and H265
- It can also code directly in soft but in this case the use is limited by the power of the processor and not recommended above 333Ks or it can be saturated especially in H265.
- The source can be OBS or vMIX or an already encoded iP stream.

For each value of SR and FEC depending on the configuration the software proposes tested and approximately optimized default values.

- We can go down to very low speeds of the order of 88kb / s which should allow transmissions in DVB-S2 SR25

The .exe is 25MB, you can place it where you want and it installs at the first launch just a directory c:\F1EJP with the necessary elements including ffmpeg.

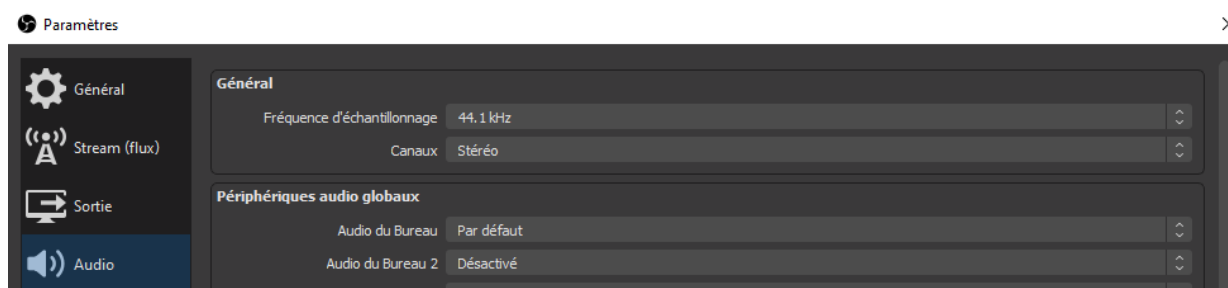
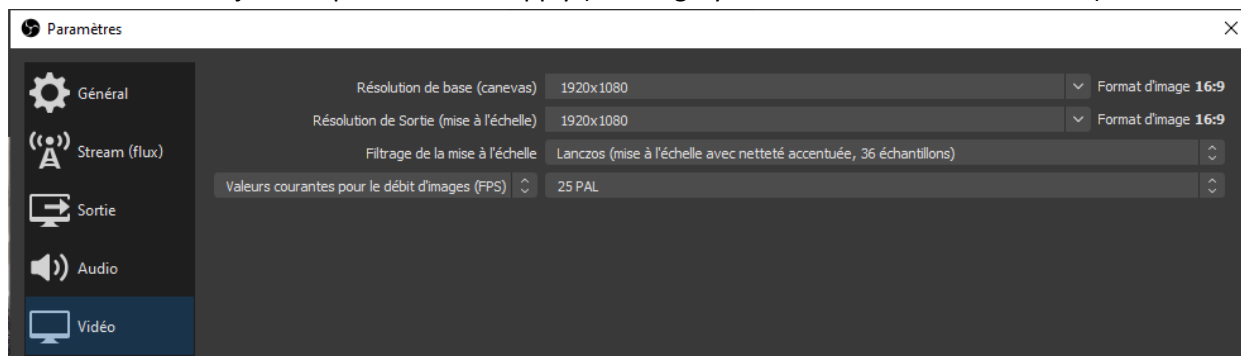


1/ If you haven't already, INSTALL OBS and the VirtualCam plug-in or vMIX

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

Many tutorials are available for their uses.

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

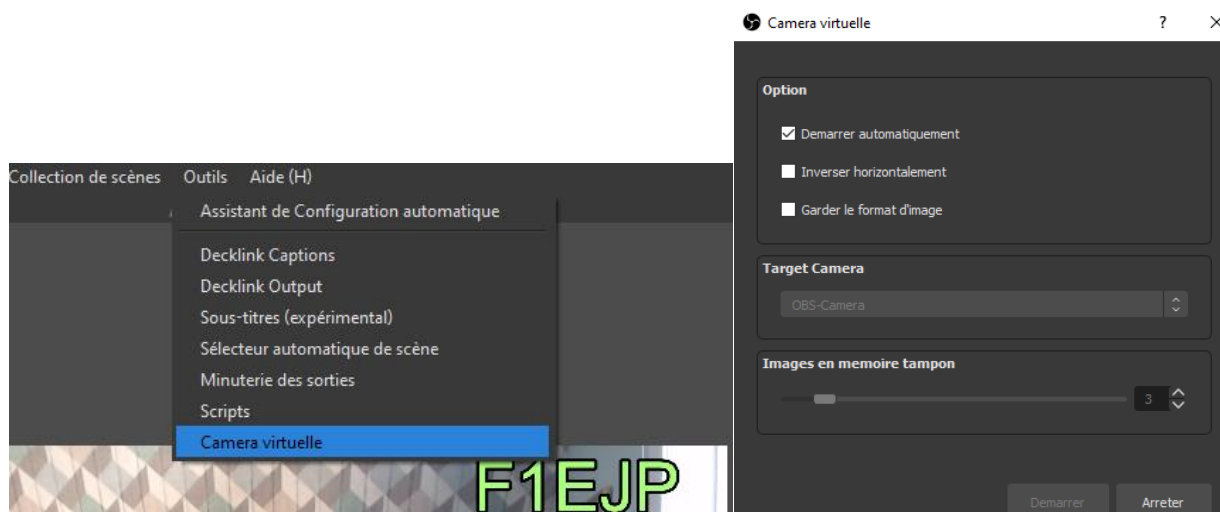


2/ For OBS Install VirtualCam

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

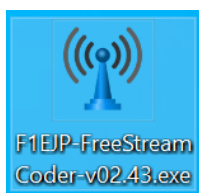
Google is my friend for the latest versions and installation explanations.

On OBS no longer need to use the recording or streaming buttons, simply go to « Tools » then « Virtual Cam » and check « Start automatically »



3 / Configuration FreeStreamCoder

Place the software on the Windows desktop and launch it



(Be careful, your antivirus may block it the first time)

Go to the "Configuration" tab

Enter your callsign and provider

Video stream

Identity

Audio stream Identity

Enter the IP of your transmitter and the port

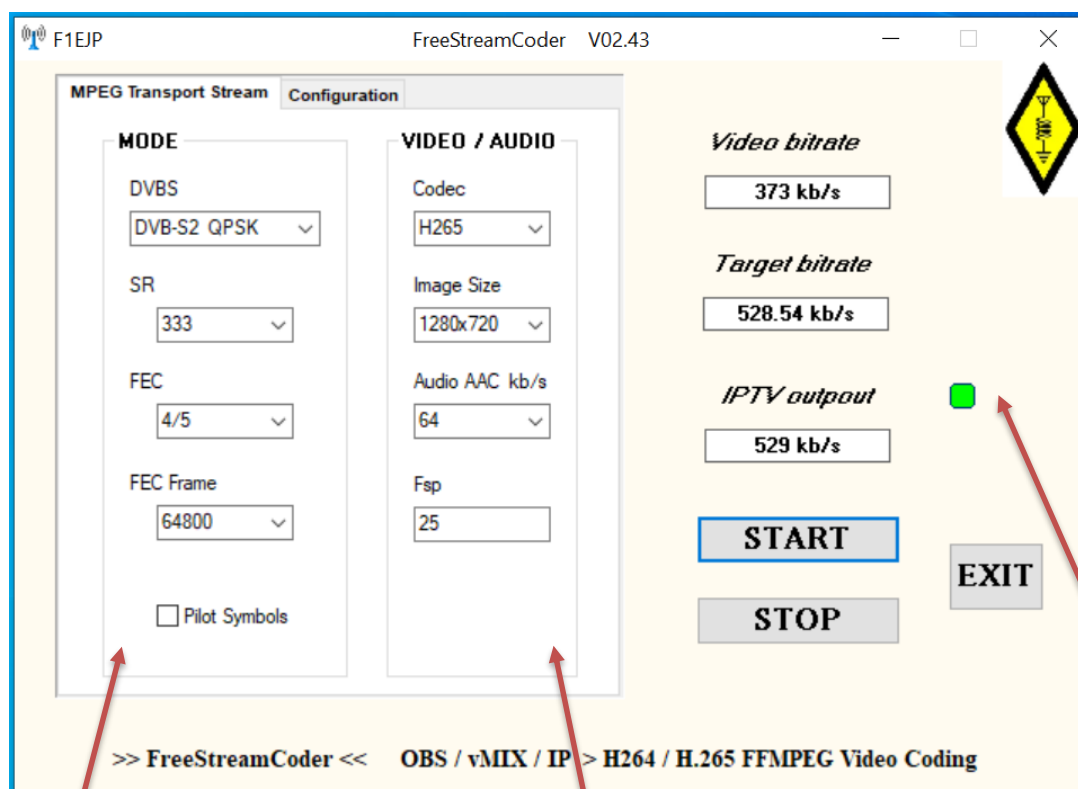
Choose the medium for coding
(NVIDIA card or INTEL processor or soft)

Frame rate at 25 or 30 images / second

Choose the source: OBS or vMIX software or already encoded IP stream
(enter the input IP address and the port)

5/ Use FreeStreamCoder

- Launch OBS or vMIX or IP stream



First choose the type of DVB modulation

Choose the Symbol Rate SR or Bandwidth

Choose the FEC error correction

In DVBS2, the calculated bit rate also takes into account the parameters chosen in the transmission for the FEC Frame and Pilots Symbol

In DVBT GuardFactor

Choose the encoding: H264 or H265.

Image resolution, audio bit rate and frame rate are offered by default depending on the DVB settings and the type of encoder used.

- You can modify them for testing. However if the settings are too high ffmpeg may no longer get the correct bitrate or crash.

IPTV output shows you the actual bitrate output from the encoder. It turns red if too high and 0 if there is a coding problem.

The LED indicates that the ffmpeg process is operating correctly.

- **START** to start coding
- **STOP** to stop coding
- **EXIT** to exit the software

Thank you for all your suggestions and feedback



73 Dominique F1EJP

I am regularly on the chat: <https://eshail.batc.org.uk/wb/>