Generating a Multiple Program Transport Stream for SBTVD

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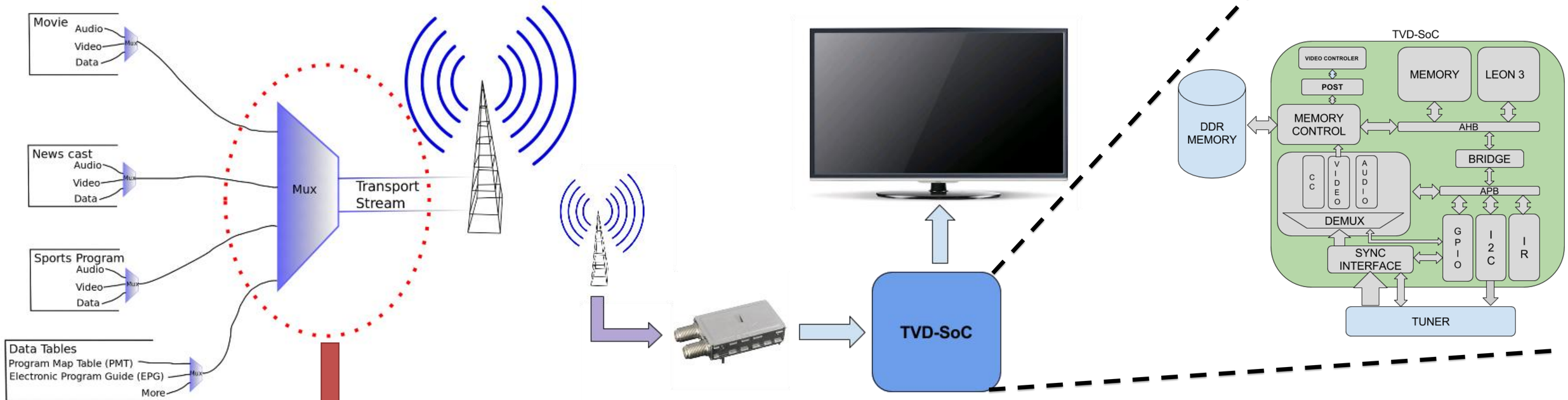
Introduction



Ffmpeg Framework

- Ffmpeg is a set of tools responsible to decode, encode, transcode, multiplex, demultiplex, streamcast, and execute almost all available types of multimedia.
- It is an open source managed by an organization.
- There is no feature regarding multi-programming TS generation according brazilian standards (ISDB-TB).
- The library *libavformat* responsible for multiplexing input data is the target.
- All tables present in the Brazilian standard will be included in the Transport Stream file been generated.

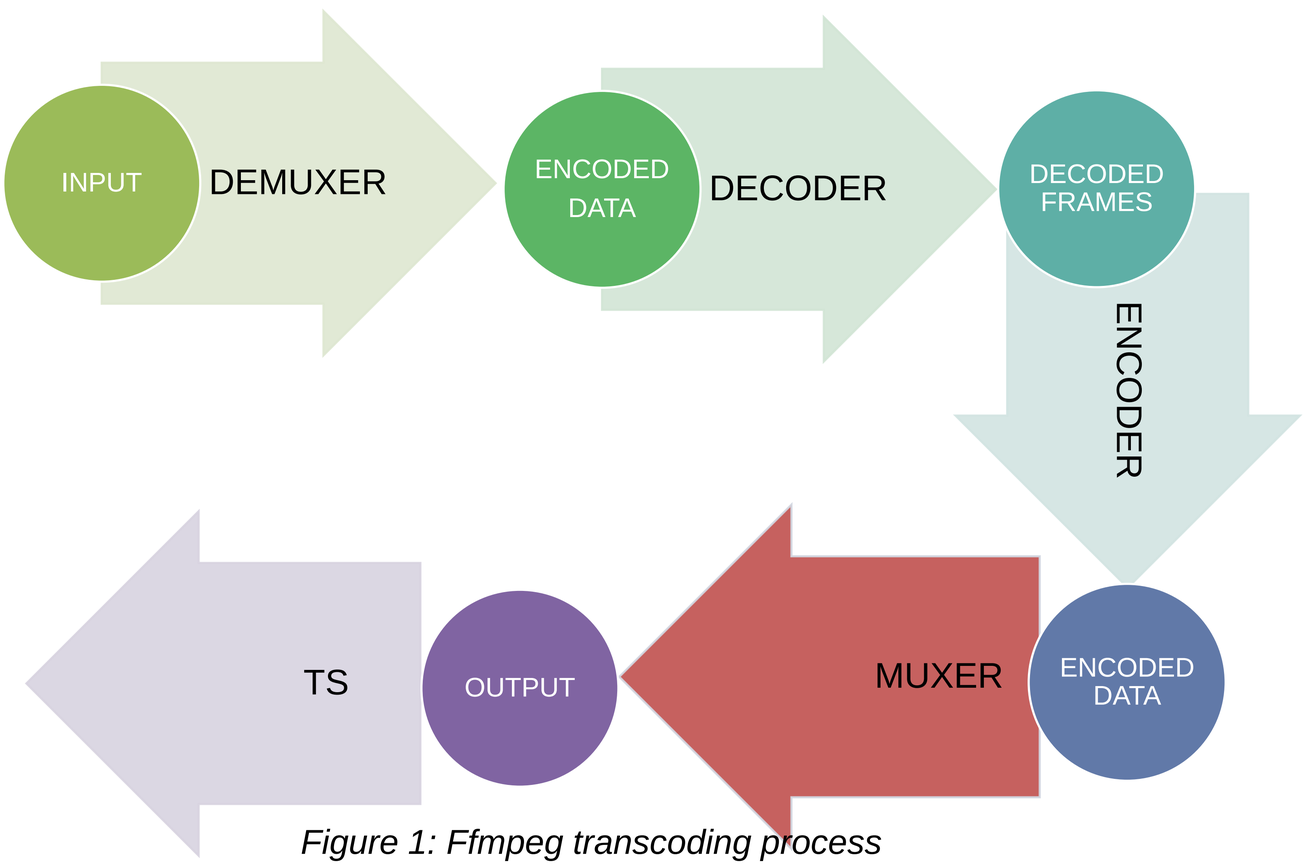


Figure 1: Ffmpeg transcoding process

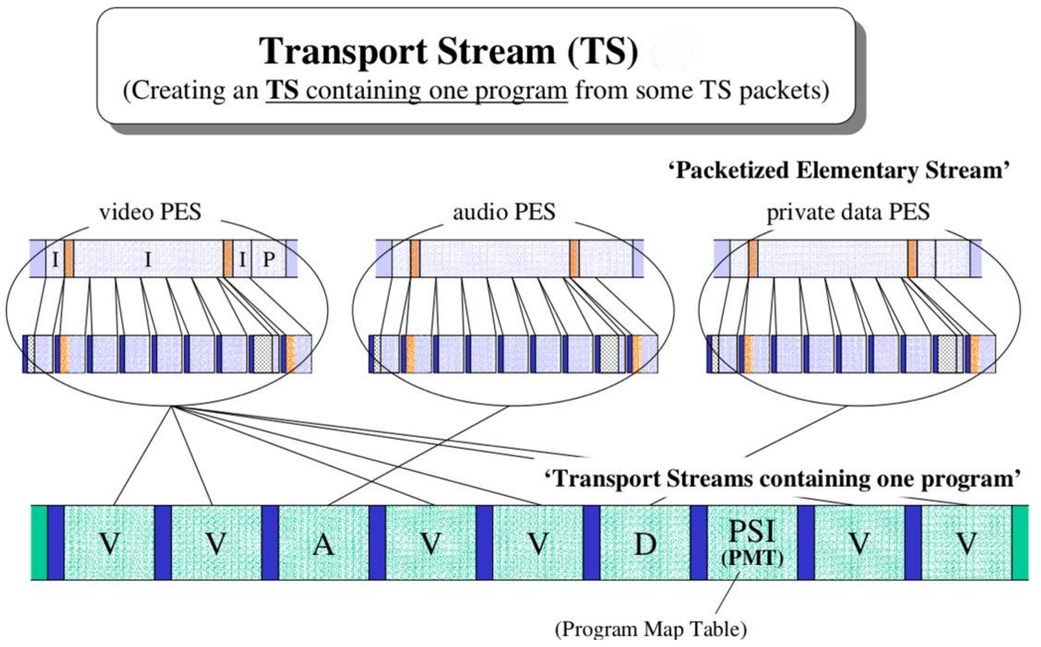


Figure 2: Actual feature available in Ffmpeg. The software is capable of generate Single Program Transport Streams

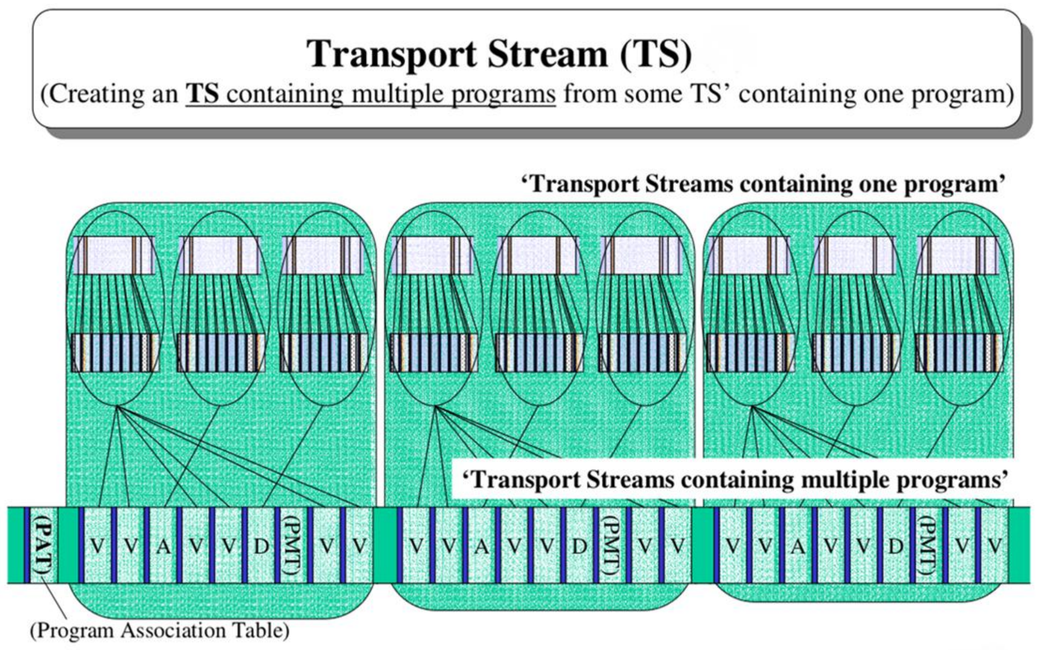


Figure 3: Multiple Program Transport Stream Structure. This feature is currently being implemented in Ffmpeg, aiming to create MPTS Compatible with the SBTVD standard.

Conclusion and Future Works

- Ffmpeg framework provides a great variety of transcoding processes. However, brazilian standard are not fully supported.
- Source code structure very complex, which requires a deep understanding of multimedia processes and programming skills.
- Contributions of this work will be available to dev. community, as open source files, inside Ffmpeg Project.
- Future works aims to explore live streaming feature with ffmpeg.
- Integrate all brazilian standard tables inside our framework patch.