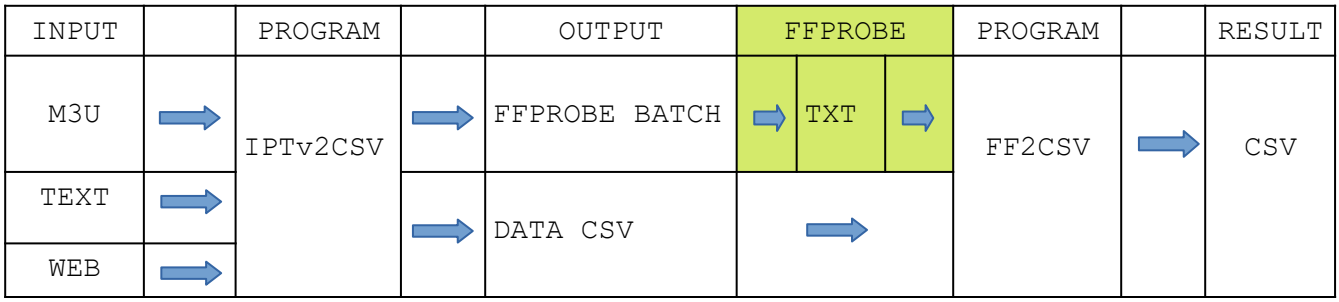
# IPTv2CSV/FF2CSV

## Project description

On the web are present many different source lists for web TV and TV streaming service. We can get all this source, elaborate them and merge the result in a single CSV file.
These sources are in different formats: m3u list with different fields, text files and HTML web pages, so we need different programs to retrieve, using ffprobe, only the information necessary to fill our CSV.

## Software concept

Using ffprobe, we check the HTTP link for retrieve streaming characteristics. We create a batch file to do this, reading the source (m3u, text, web page). The source can be different, managed by different versions of IPTv2CSV, but the resulting batch is the same, with the same parameters. The output of the batch is managed by another program, FF2CSV, to build the final CSV.
IPTv2CSV can build an additional CSV, containing data that will be merged to the final CSV, like TV name, language, country, etc., depending on the source.




## FFprobe

FFprobe is a simple multimedia stream analyzer. You can use it to output all kinds of information about an input including duration, frame rate, frame size, etc. It is also useful for gathering specific information about an input to be used in a script.

## Other things to do

On the web, using search engine, we can find other useful information like the correct TV name, TV company address, TV logo. This information can be useful to make our database the most accurate possible. A classic mistake is the TV name: may be slightly different from the one provided in the source list.

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# SOME INFO ABOUT VIDEO STREAMING

**Online Video Platform**
An OVP provides streaming solutions for managing and hosting content. OVP can influence video streaming quality through multi-bitrate streaming.
Modern video players are adaptive. This means that they automatically detect the viewer's internet speed and adjust accordingly. For a viewer on a slow connection, they'll deliver a lower quality video. For those on a fast connection, the video quality will be higher.
Multi-bitrate streaming refers to the process of sending a live stream out in multiple different qualities at once. An example is DeeJay TV: on the same Http you will find an audio streaming (without video) and three video streaming at different quality.

**Akamai**
One of the Most used OVP is Akamai. Akamai's Adaptive Media Delivery is optimized for adaptive bitrate (ABR) streaming to provide a high-quality viewing experience across the broad variety of network types (fixed or mobile) at varying connection speeds. The solution securely delivers prepared, pre-segmented HTTP based live and on-demand streaming media, including support for the following video and music formats:
• HTTP live streaming (HLS)
• HTTP dynamic streaming (HDS)
• Microsoft smooth streaming (MSS)
• Dynamic adaptive streaming over HTTP (MPEG-DASH)
• Common media application format (CMAF)

**HTTP Live Streaming**
HTTP Live Streaming (HLS) sends audio and video over HTTP from an ordinary web server for playback on desktop computers and mobile devices. Using the same protocol that powers the web, HLS deploys content using ordinary web servers and content delivery networks. HLS is designed for reliability and dynamically adapts to network conditions by optimizing playback for the available speed of wired and wireless connections. HLS supports the following:
- Live broadcasts and prerecorded content (video on demand, or VOD)
- Multiple alternate streams at different bit rates
- Intelligent switching of streams in response to network bandwidth changes
- Media encryption and user authentication

**Playlists for HTTP Live Streaming**
HTTP Live Streaming sends audio and video as a series of small files, typically of about 6 seconds duration, called media segment files. An index file, or playlist, provides an ordered list of the URLs of the media segment files. Index files for HTTP Live Streaming are saved as M3U8 playlists, an extension of the M3U format used for MP3 playlists. The URL of the index file is accessed by clients, which then request the indexed files in sequence.

**Master Playlist**
The master playlist describes all the available variants for your content. Each is a version of the stream at a particular bit rate and is contained in a separate playlist. The client switches to the most appropriate variant based on the measured network bit rate. The client's player is tuned to minimize stalling of playback, to give the best possible streaming experience.

## REFERENCES


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