1 Solutions in Melt Framework?

MLT

- Read through MLT FX User Guide [1]

- Can MLT FX be used in the terminal/through commands or is it an application with UI only? Look into https://www.mltframework.org/docs/fxcut/? on FX Cut (but this page is from 2005)

- Apply filter?

- Look into https://www.mltframework.org/plugins/PluginsFilters/?

- `melt [options] [producer [name=value]* ]+ Options:`

  - `attach filter[:arg] [name=value]* Attach a filter to the output`

  - `attach-cut filter[:arg] [name=value]* Attach a filter to a cut`

  - `attach-track filter[:arg] [name=value]* Attach a filter to a track`

- Collected information about melt https://superuser.com/questions/358082/command-line-video-editing-in-linux-cut-join-and-preview
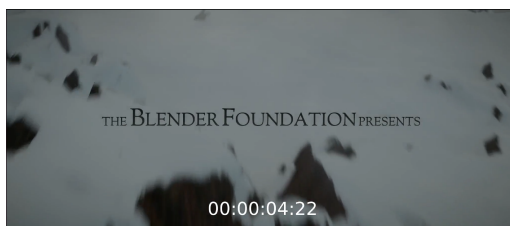
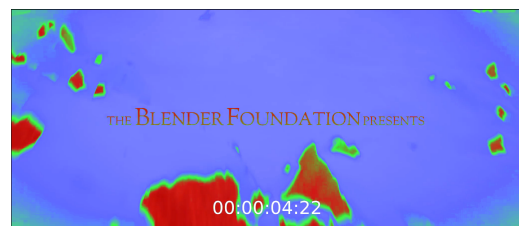- Promising sounding filters:

- `avfilter.colorbalance`

  https://www.mltframework.org/plugins/FilterAvfilter-colorbalance/

  ```
  title:  colorbalance
  media types:  Video
  description:  Adjust the color balance.
  ```

  $\rightarrow$ looks promising

  Execution of `melt https://s3.eu-central-1.amazonaws.com/accurate-player-`
  `-demo-assets/timecode/sintel-2048-timecode-stereo.mp4`
  `-filter avfilter.colorbalance av.rs=1 av.gm=1 av.bh=1`:

  Original colours

  Colours with `av.rs=1 av.gm=1 av.bh=1`

  Float parameters with komma instead of dot, f.ex. $0,5$

  Adding filter to `local_melt.py` to execute it in the Accurate Player using JIT:


  ```
  108    logging.info("Command line arguments for melt application: ")
  109    logging.info(melt_args)
  110    melt_args.append('-filter')
  111    melt_args.append('avfilter.colorbalance')
  112    melt_args.append('av.rs=1')
  113    logging.info("Modified command line arguments for melt application: ")
  114    logging.info(melt_args)
  115    LOCAL_MELT["process"] = Popen(melt_args, close_fds=True, env=env, stdin=PIPE)
  116    logging.info("Melt process spawned")
  ```

- avfilter.colorchannelmixer

  https://www.mltframework.org/plugins/FilterAvfilter-colorchannelmixer/

  ```
  title:  colorchannelmixer
  media types:  Video
  description:  Adjust colors by mixing color channels.
  ```

  → looks promising

- avfilter.colorcontrast

  https://www.mltframework.org/plugins/FilterAvfilter-colorcontrast/

  ```
  title:  colorcontrast
  media types:  Video
  description:  Adjust color contrast between RGB components.
  ```

  → looks kind of promising

- avfilter.colorlevels

  → Maybe – Adjust the color levels with black point and white point. (The Black point is the Darkest set of pixels in an image, while the White point is the Brightest.)

- avfilter.colortemperature → Maybe – adjust color temperature of video.

- frei0r.coloradj_RGB

  https://www.mltframework.org/plugins/FilterFrei0r-coloradj_rgb/

  ```
  title:  coloradj_RGB
  media types:  Video
  description:  Simple color adjustment
  ```

  → looks promising

- frei0r.colorize

  https://www.mltframework.org/plugins/FilterFrei0r-colorize/

  ```
  title:  colorize
  media types:  Video
  description:  Colorizes image to selected hue, saturation and lightness
  ```

  → looks promising

References

[1] Snell Advanced Media (SAM). *MLT FX - User Guide.* Accessed 12.02.2024. 2016. URL: https://wwwapps.grassvalley.com/docs/Manuals/sam/Post%20and%20Editing/MLT%20FX%20User%20Guide.pdf.