Command Line Tools & Utilities

A Command Line Interface is a way of interacting with a computer by issuing commands in the form of lines of text. These commands interface with your operating system and hardware to perform complex and intensive operations.

There is a large amount of useful Free and Open Source Software (FOSS) available online that does not need or use a Graphical User Interface (GUI). Often this software works more efficiently with the operating system or directly with the hardware and therefore can perform tasks such as image, video or sound manipulation with ease.

Also because the CLI has a scripting language you can write scripts that automates certain tasks. For example:

1. Downloading/uploading files from servers or web pages
2. Converting, cropping, trimming, splitting, combining video files
3. Converting, cropping, combining image files
4. Adding effects to, combining, trimming, splitting audio files
5. Mixing video & audio
6. Extracting video & audio
7. Adding text to video or images

Installing CLI Tools

Homebrew - Package Manager for macOS

[Homebrew](#) is a package manager for the macOS CLI. Once you install it on the CLI you can with one line install a lot of software from it's repository.

1. Open Terminal
2. Copy and paste the following line:

```
/usr/bin/ruby -e "$(curl -fsSL
https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

3. Hit enter and it will install it for you.
4. To test if it was successful enter the following command:

```
brew -v
```

FFMPEG

FFMPEG is a powerful and flexible tool for performing any transformation tasks on video files.

Install

```
brew install ffmpeg \
    --with-tools \
    --with-fdk-aac \
    --with-freetype \
    --with-fontconfig \
    --with-libass \
    --with-libvorbis \
    --with-libvpx \
    --with-opus \
    --with-x265
```

Example use / Tutorial

- The basics -
  https://en.wikibooks.org/wiki/FFMPEG_An_Intermediate_Guide#The_Basics

SoX

The homepage for SoX calls it "the Swiss Army knife of sound processing programs" and gives the
following description:

> SoX is a cross-platform (Windows, Linux, MacOS X, etc.) command line utility
> that can convert various formats of computer audio files in to other formats. It
> can also apply various effects to these sound files, and, as an added bonus, SoX
> can play and record audio files on most platforms.

Install

```
brew install sox
```

Example use / Tutorials

- Good introduction and some examples - http://www.krisyu.org/blog/processing-audio-files-sox.html

ImageMagick

ImageMagick is a powerful image manipulation tool.

Install

```
brew install imagemagick
```

Example use

- A comprehensive list of example use - **http://www.imagemagick.org/Usage/**