# Clipping media using a script for macOS

ELAN supports the creation of media clips (video and/or audio) by external applications, based on information entered in a text file named "`clip-media.txt`". Via this script, ELAN can call an external program from the command line and pass the parameters it needs to do the actual clipping.

On **macOS** this can work roughly the same as on **Windows** and **Linux** (see the file "`Clip_media_Windows.pdf`") but this tutorial shows you how to set-up this script on **macOS** to call an AppleScript script, which in turn calls QuickTime Player to:

1. open the media file
2. trim to the selection made in ELAN
3. export the result as `.mp4` or `.m4a` (or save as `.mov`)
4. close the file

The result will be saved in the same location as the original video or in a location specified by the user.

There are four steps needed to be taken to clip the media successfully:

1. Placement of the script files in their locations.
2. Editing and saving 'clip-media.txt' to match your file paths and AppleScript choice.
3. Editing and saving the AppleScript of your choice (optional).
4. Calling the script from within ELAN via `File->Export as->Media Clip using Script…`

## 1. Where to place the script

Clipping with these AppleScripts will only work if you are working on a local machine.

There are two locations where ELAN will look for the script file (i.e. "`clip-media.txt`"). The first location ELAN will search is the preferences folder, which is located here:

`/Users/<user>/Library/Preferences/ELAN`           (`<user>` represents the home folder of the user, the `user_login_name`)

If the txt-file and the scripts are located there, future versions of ELAN will also be able to find and use the scripts. In the Finder the `<user>/Library/` folder is hidden by default; it can be made visible via the `Go` menu of the Finder while holding down the `⌥` Option (or Alt) key.

The second location ELAN will search is ELAN's own `.app` folder (as of ELAN 5.0), e.g.

`/Applications/ELAN_5.2.app/Contents/Resources/clip-media.txt`

The contents of an `.app` folder can be made visible by Ctrl-clicking (or right-mouse button click) the folder and selecting `Show Package Contents` in the context menu.
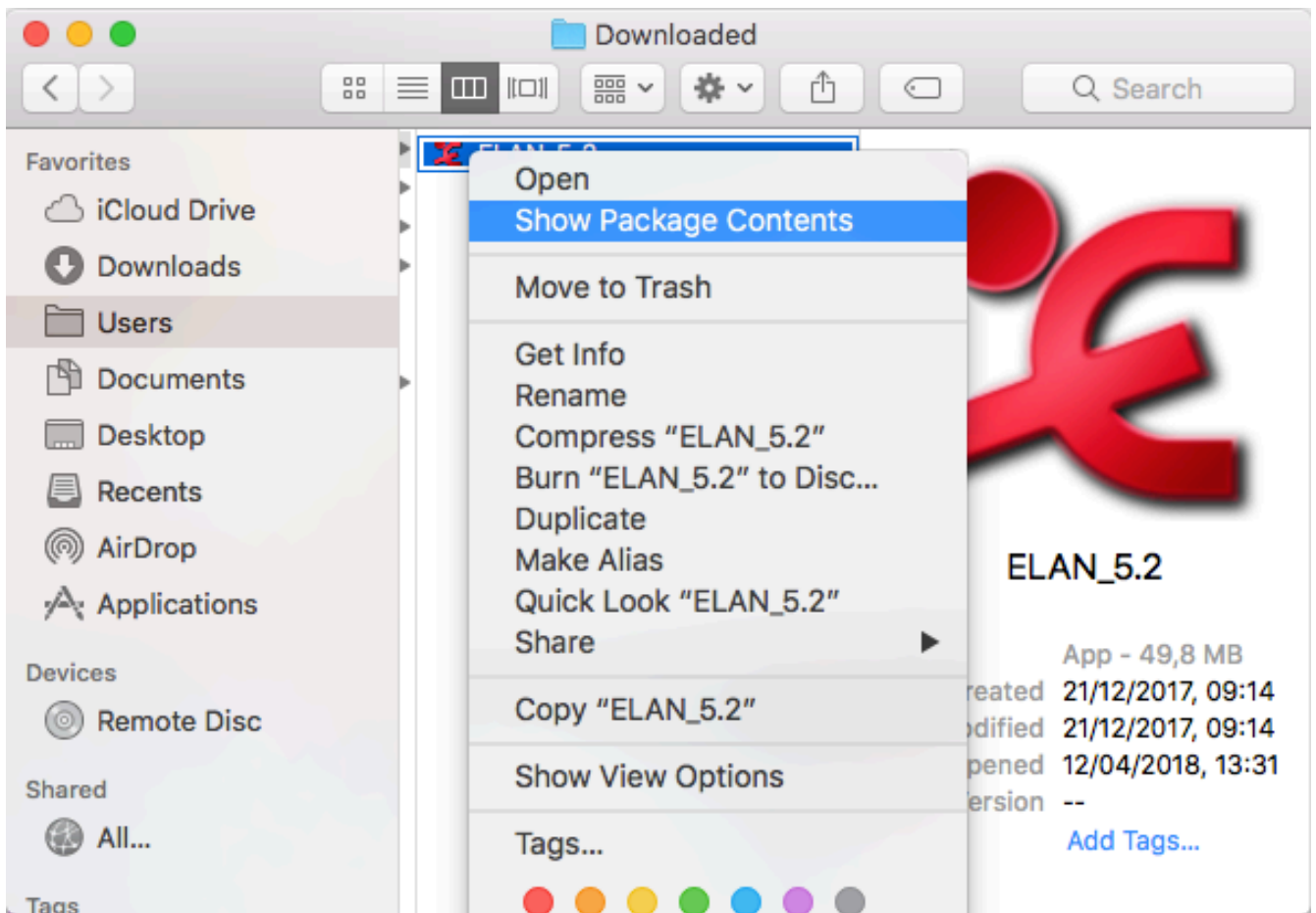
*Figure 1 The Finder with the context menu for the ELAN_5.2 .app folder*

The AppleScript `.scpt` files are distributed with ELAN in the "`clip_scripts_10_10.zip`" file in the same Resources folder mentioned above, so e.g.

`/Applications/ELAN_5.2.app/Contents/Resources/clip_scripts_10_10.zip`
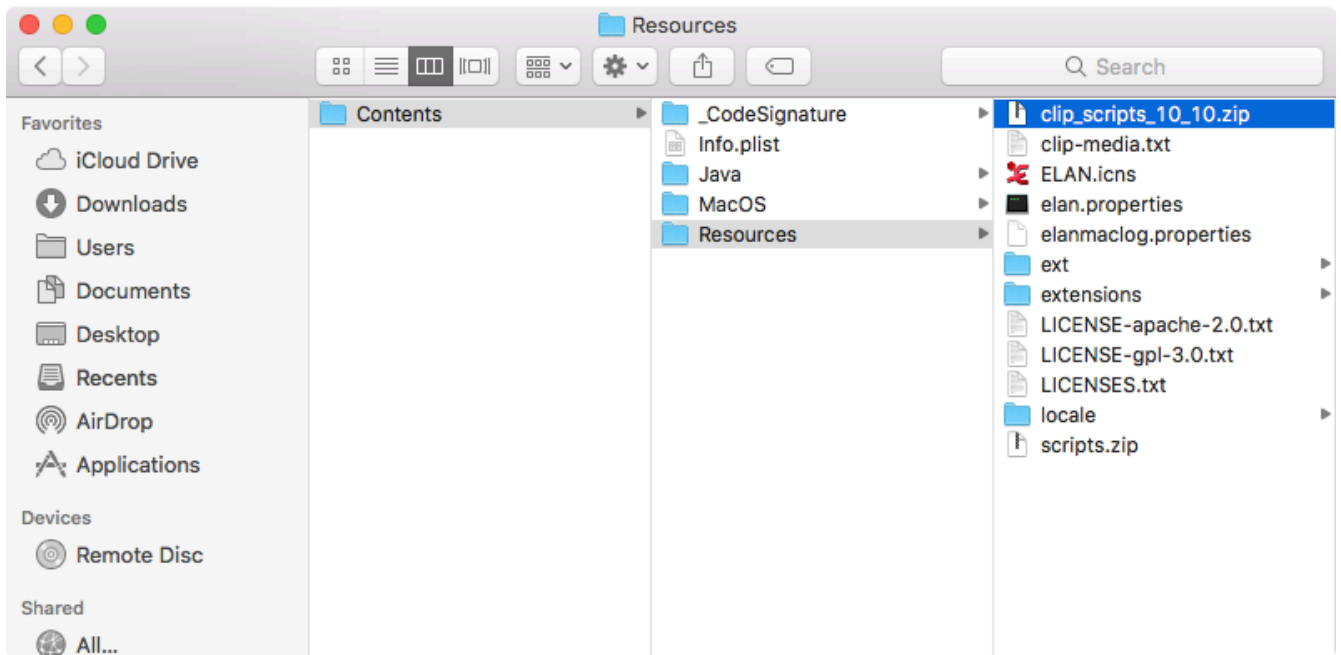
*Figure 2 The contents of the Resources folder inside the .app folder*

The `.scpt` files are zipped because otherwise the ELAN application cannot be digitally signed. Therefore the user has to unzip the file and it is best to copy the `.scpt` files to the preferences folder as mentioned above.

The `.zip` contains the following two files:

- qtp_clip_10_10_export.scpt  : for Mac OS 10.10 or higher, the export function
- qtp_clip_10_10_save.scpt    : for Mac OS 10.10 or higher, save as function (only for `.mov`)

## 2. Editing of "clip-media.txt"

Working with the different AppleScripts might require some editing of "`clip-media.txt`". When opening the file in a text-editor it will look something like this (*the following is one line without line breaks*):

```
osascript ../Resources/qtp_clip_10_10_export.scpt $in_file $out_file
$begin(sec.ms) $end(sec.ms)


# M2-edit-cl /in:$begin(fr) /out:$end(fr) $in_file $out_file

# ffmpeg.exe -vcodec copy -acodec copy -ss $begin(sec.ms) -t
"$duration(sec.ms)" -i $in_file $out_file


# Lines starting with a # (dash) are considered to be comment lines.

# ...
```

The first line (`osascript ../Resources/qtp_cl...`) is relevant for **macOS** users. "`osascript`" is a program that can execute AppleScript scripts (amongst others). It is called with the path to the script-file and some additional parameters. If the ..._`export.scpt` file is, after

unzipping, copied to the `Resources` folder, the clipping might work without editing this first line.

Depending on the location of the files, the path to the `.scpt` file can either be relative (e.g. `../Resources/qtp_clip_10_10_export.scpt`) or absolute (e.g. `/Users/<user>/Library/Preferences/ELAN/qtp_clip_10_10_export.scpt`).

Note that if you placed the files in the "preferences"-folder (`/Users/<user>/Library/Preferences/ELAN`), you can only use absolute paths.

The second part of the rule consists of four placeholders (`$`), which are determined by ELAN. This concerns the start and end time of the selection and the input and output files. These should not be edited.

An example of an edited rule with an absolute script path (*this should all be on one line without line breaks!*):

```
osascript
/Users/<user>/Library/Preferences/ELAN/qtp_clip_10_10_export.scpt
$in_file $out_file $begin(sec.ms) $end(sec.ms)
```

The script-file used in the example is `qtp_clip_10_10_export.scpt` : a script intended for **macOS** 10.10 or higher. This script leaves the extension intact; it only exports the selection to a new clip. The new clip can be found in the same folder as the original video, unless the user has specified the name and location in a `Save As…` window.

When you have edited the rule in "`clip-media.txt`" to your needs, save it and (re-)launch ELAN.

## 3. Editing AppleScript files

As said, AppleScript is used to execute the QuickTime commands. These `.scpt` files also could require some editing. By double-clicking such a file, the Script Editor will open:

AppleScript ⌄   <No selected element> ⌄

```applescript
property hd : "Macintosh HD" -- change this if the hard drive has a different label

on run args
	set inFile to POSIX file (item 1 of args)
	set outFile to (item 2 of args) -- use as string first
	set start_string to (item 3 of args)
	set end_string to (item 4 of args)
	set start_time to (start_string as real)
	set end_time to (end_string as real)

	-- check the format of the start time
	set pindex to offset of "." in start_string
	if pindex > 0 then
		set start_length to length of start_string
		if start_length = pindex + 3 then
			set start_string to start_string & "1"
			-- set start_time to start_time - 1.0E-4
			try
				set start_time to (start_string as real)
			on error
				set start_string to (get text 1 thru (pindex - 1) of start_string) & "," & (get text (pindex + 1) thru
						(start_length + 1) of start_string)
				set start_time to (start_string as real)
			end try
			-- display dialog "Start: " & start_string & " real: " & start_time
		end if
	end if

	-- convert posix path to HFS format, e.g. from /Users/Shared to disc:Users:Shared etc
	set AppleScript's text item delimiters to {"/"}
	set itemlist to get text items of outFile
	set AppleScript's text item delimiters to {":"}

	set target_file to hd & itemlist as string

	tell application "QuickTime Player"

		open inFile

		delay 1
		activate
		if not (exists document 1) then error number -128

		set the current time of document 1 to start_time
		trim document 1 from start_time to end_time

		delay 1
		--settings
		-- "720p"
		-- "iPad, iPhone 4 & Apple TV"
		export document 1 in file target_file using settings preset "720p" -- or "iPhone" or "Computer" etc.

		--delay 1
		close document 1 saving no
		set visible of window 1 to false
		-- quit saving no
	end tell
end run
```

**Description**

*Figure 3 The Script Editor with the export script; in yellow the settings that might need to be edited*

The first line defines a property for the name of the hard drive. The default is set to "Macintosh HD" but this should be changed if the hard drive of the user has a different name. The name of the hard drive can be found e.g. by selecting Go->Computer in the Finder menu.

Another statement that might require editing is the one setting the output format:

```
export document 1 in file target_file using settings preset "720p"
```

Depending on the input file and the version of **macOS**, the following presets might be available:

– 480p

– 720p

– 1080p

– 4K

– Audio Only

The list of formats in the `Export As` menu of QuickTime Player (after opening your file in the player) can be used as a reference. It is advised to first create some clips in QuickTime Player itself, in order to get familiar with the possibilities and the limitations of clipping with QuickTime Player.

## 4. Executing the script in ELAN

After saving the script file(s), launch ELAN, open a document or create a new one, make a selection and from the main menu choose: `File->Export As->Media Clip using Script…`
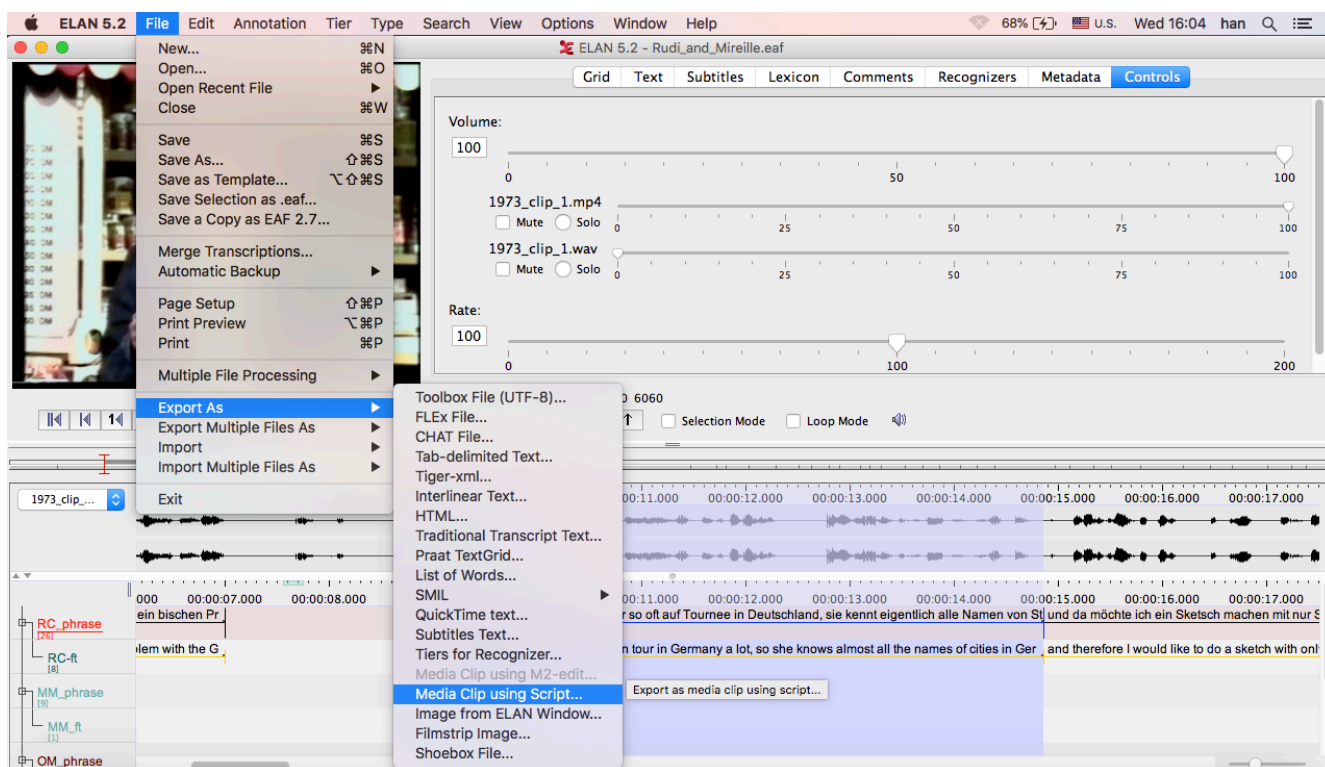


*Figure 4 Calling the script*

QuickTime Player will start up and process the video. If you chose the "`export`" script, you might also see an export dialog. You can close that when finished.

The result will either be saved in the same location as the original video (the output file name will be constructed based on the input file name and the start and end time of the selection), or in a location specified by the user. This depends on a preference setting in the `Media` panel in `Edit->Preferences->Edit Preferences…`
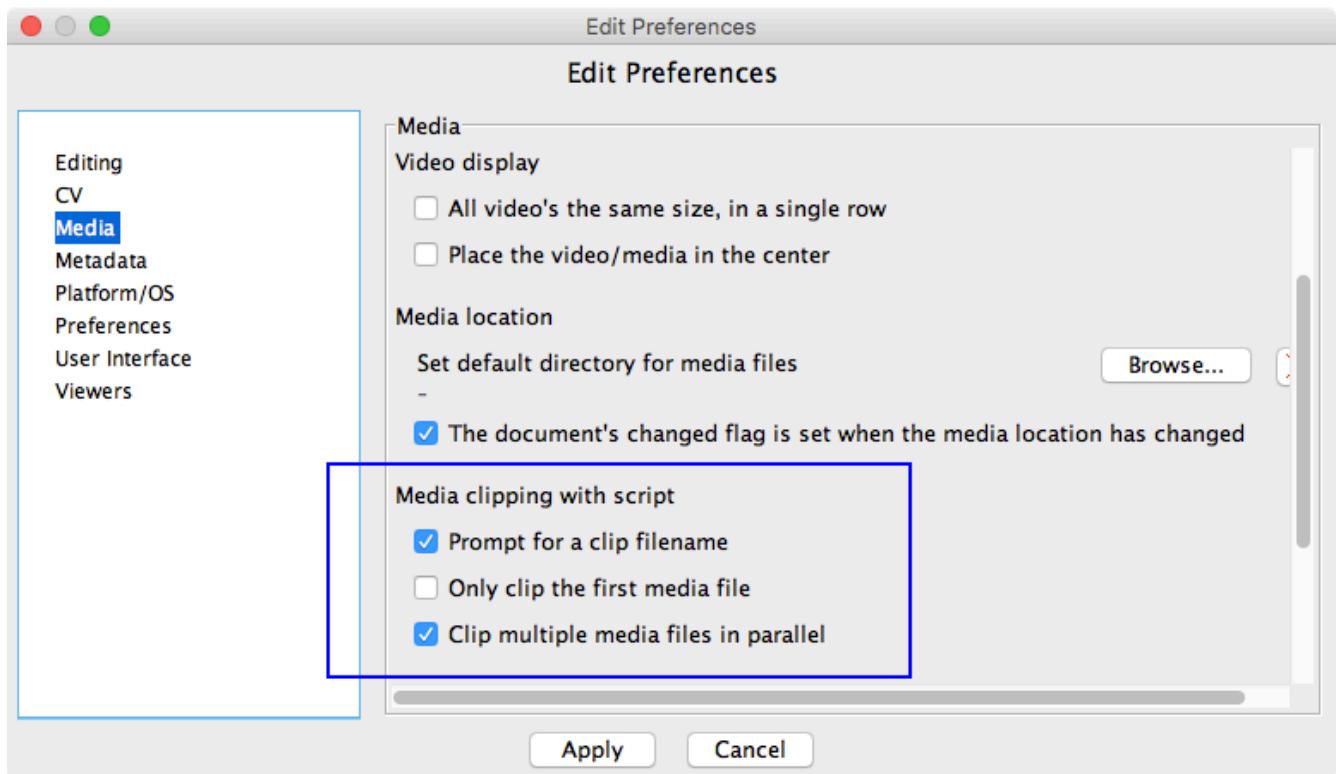


*Figure 5 Settings related to clipping*

If the option `Prompt for a clip file name` is selected, a `Save as` prompt will be shown when the menu item of Figure 4 is selected. When using the `export` script, it depends on the type of the source file and on the output settings, whether to enter a file name with or without extension. If the source is e.g. an mpeg-1 file, adding the extension `.mp4` is required in order to export a clip (which will be an `mp4` file). If the input file is an `.mp4` file, the extension can be omitted. When an `.mp4` extension has been entered, a linked `.wav` file will also be clipped and saved as an audio only `.mp4` file. If the output setting is "`Audio Only`", use the `.m4a` extension.