

VidePub

User Manual

Version 1.6 – 04/2017

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1. What's new ?

Modifications in version 1.6 :

- Copy/paste segments in text format hh:mm:ss.ss-hhmm:ss.ss,...
- New parameter to search for segments where logo is missing,
- This parameter and margins are now saved with logos,
- Redesign of timing and displacement functions,
- Graphical interface improvements :
 - a splitter bar allows to resize segments list,
 - new icons, menus, shortcuts and toolbars,
 - a thin line shows current position in timeline
- Command line arguments to load a file, create segments manually or detect them, and save results. See chapter 10.
- Algorithm improvements.

Modifications in version 1.5 :

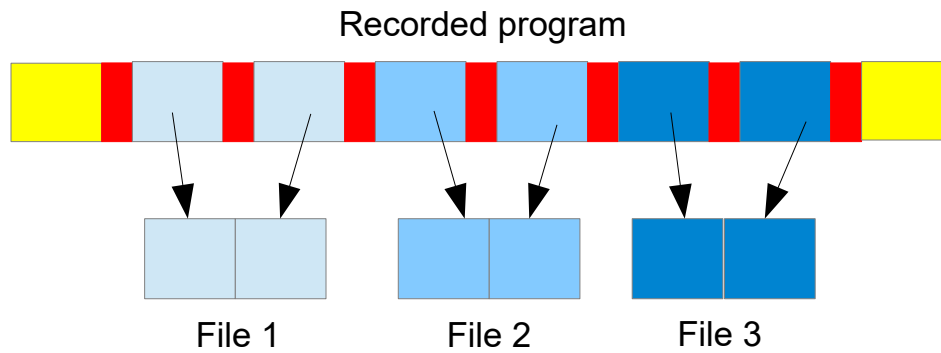
- A graphic temporal bar has been added. This bar shows the segments of the list with their state, and allows selection by left-click,
- Highlight of segment bounds that have been adjusted manually,
- Re-design of displacement functions, to be more reliable on videos with errors due to bad transmission.

2. What is it ?

VidePub is a video editor designed to extract films or series episodes from a broadcasted TV program recorded in an MPEG file (MPEG2 or H264 transport stream ".ts" file), recorded for example by a DVB USB stick or an ADSL TV Channel.

Basically, it is just a video cutter. It allows to select several distinct parts of the video (so called "segments") and save them in a single output file, with no re-compression or format change, for example to skip the unwanted previous or following program at the beginning or the end, or to cut the commercials, to make a "clean" program.

Let's imagine you have in your recorded program 3 episodes of a series interlaced with some commercials, and other stuff you don't want to keep. The content of your recorded video will look like this (in yellow are the leading and trailing programs, in blue the episodes, in red the commercials) :



VidePub will provide you with all the tools to define the segments to keep (the blue parts above), and group them in each episode or movie file (File 1, 2 and 3 in the example).

Question : So why another video cutter ? There are already so many out there....

Answer : The logo detection !

In many countries, there is often a small visible channel logo on the corner on the screen during the series, which disappears during commercials (because they can't advertise for themselves meanwhile !). VidePub has a tool which helps to find when the logo is visible, and therefore extracts automatically the "blue" parts ! Et voilà...

Note : I've developed this tool for my own use, and released it to the community hoping it may be useful for someone else, but without any warranty on any loss of data that could result from its use. Before dropping the source file, always check that the processed outputs are correct !

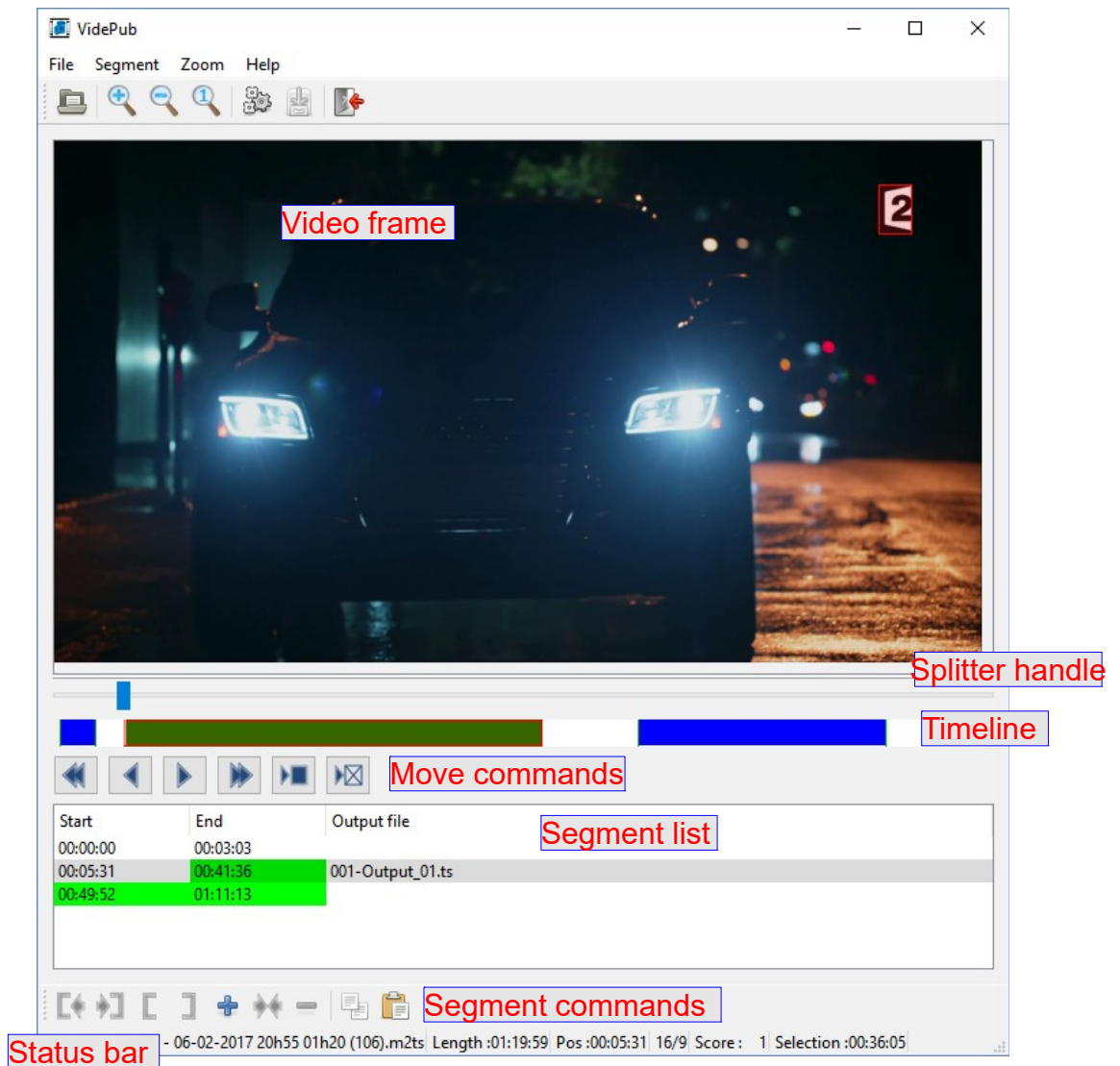
3. License

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4. The main panel



4.1. Video frame

It is the window where the current video frame is displayed. You can adjust the zoom with the commands just above, and adjust the displayed part with the scrollbars.

To open a file, just drop it in this frame. If a video is already opened, it will be closed.

4.2. The timeline

The cursor shows the position of the current displayed frame. If you click on the right of the cursor, it will jump about 10 seconds later, and if you click on the left, it will jump 10s sooner (may not work on all videos).

You can drag the cursor to adjust the position manually. You can also use mouse wheel to move the cursor while pointing it. The current position is given by the **Pos** field of the Status bar and the red line in the timeline.

The line under the cursor shows the segments of the list below. The blue rectangles are segments that have not been saved on disk, the green ones are the saved segments. The selected segments are highlighted in red. It is possible to left-click on this bar to select a segment and move to the start of the segment (if you click on the segment) or at the end (if you click on the white area after a segment).

4.3. Move commands

Those commands are useful to seek a particular point in the video. The < and > jump to the nearest keyframe, << and >> jump to 10 s before or after the current point.

If you have already grabbed a logo, you can use the >] button to search the next position where the logo appears (if the logo is here on the current frame, it will first jump to the first disappearance of the logo, and then go to its re-appearance). You can also use the >X to find the next point where the logo disappears.

4.4. Segment list

This is the list of all segments detected or manually defined. The segments in this list are always ordered in increasing time, and cannot overlap. They are defined by a start time and an end time. When you select several segments, you can see the summed length of the selected segments in the **Selection** field of the status bar. This can help to see if the selected sequence you're about to save is correct (for example, the episodes of a series are often around 40 minutes long).

When a segment is saved in a file, the file name appears in the list (so you exactly know where you are in your processing job).

When you adjust manually a segment bound, it is displayed in green in the list (so you know where you are in your edition session).

To select several segments, select the first with left clic, and :

- select the last with shift+clic
- or select each others with control+clic

4.5. Segment commands

All the commands of this section apply to the segment list or selection.

- The [< button jumps to the beginning of the (first if many) selected segment
- The >] jumps to the end of the (last if many) selected segment
- The [redefines the beginning of the (first) selected segment to the current position. If this position is inside an existing segment, all the intermediate segments are merged so there is no overlapping
- The] redefines the end of the (last) selected segment to the current position. If this leads to overlapping, all the overlapping segments are merged
- The + adds a new segment (of null length) at the current position. Then you'll have to redefine its end by going to the adequate position and pressing]. The shortcuts are Return to add a new segment and spacebar to define its end (see **Segment** menu).
- The -><- button replaces the selection with a single segment going from the beginning of the first one to the end of the last one.

4.6. Status bar

It displays, in this order :

- The input file name
- The length of input file hh:mm:ss
- The current frame position hh:mm:ss
- The aspect ratio of the movie
- The logo detection score in the current frame : if above 0.5, the logo is considered as detected.
- The sum of the length of the selected segments

5. Basic tutorial

To process a file, here are the typical basic steps :

1. Open the file by dropping it from the explorer in the main frame
2. Seek manually in the video to find a frame where the logo has a great contrast (for semi-transparent logo, it may depend on the background). It is generally easy and quick (it doesn't need to appear on a dark black background for the detector to work). Use the timeline or the buttons of the Move section to seek.
3. Drag a rectangle around the logo using left mouse button. You can use the zoom/unzoom command as you wish. There is no need to crop it very accurately.
4. Check in the box that the logo is correctly cropped, and launch the processing
5. Select each detected segment, and check and adjust it with the **Segment** commands. Go to the beginning and to the end of each segment ([**<** and **>**] buttons), seek the best position if necessary, and change the segment bound with the [**]** or [**]** button (shortcuts **B** and **space**). It's better to position the beginning and the end of a segment on a movie picture.
6. Then, select the segments corresponding to the first episode (ctrl+click or shif+click in the segment list), and save them in File 1 (typing **control+S** or using the menu command)
7. Repeat 6 for the others episodes
8. Save the logo for future use (see next chapter)

6. Saving selected segments

When you select several segments and save them using **ctrl+s** (or the menu **File > Save selection**), selection is saved in a single file (all segments together) or in separate files, according to the state of **File > Merge selected segments** menu.

7. Saving logos

Once you're finished with a movie, you can store the logo you grabbed on the picture. Then, each time you load a movie with the same logo, the software will be able to recognize it and will propose you to process the movie automatically.

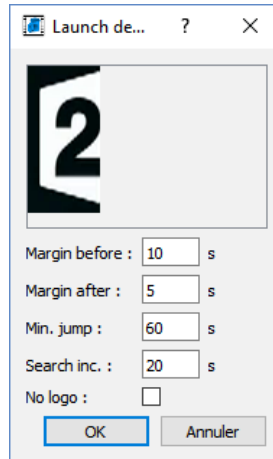
To store the logo in the parameters, select the menu **File->Store current logo** and enter the name (for instance the channel name). It will store that in a directory named VidePub in your home folder.

The next menu **File->Manage stored logo...** will allow you to delete or reorder stored logos (notice that order is significant as, when the soft opens a file, it stops searching for a logo as soon as it finds a match).

8. Hints and tips

- The software manages automatically a numerical prefix. For instance, if you save your first episode in, say, 01-toto.ts, the software will automatically suggest 02-toto.ts for the next one.
- Sometimes, the logo will not be detected correctly in a given part of the movie because of a too low contrast (ex a blue logo in the blue sky background...). Then the sequence will be divided in 2 or more segments with "false" commercials detected between. Then just select all the segments and press **Merge** to have a continuous one and remove the false cuts.
- The software does not search the logo in every frame but uses some dichotomy search instead (which is parametrized by the processing settings). That's why it can have some false detections in sequences where the logo contrast is often low.
- The logo generally doesn't appear at the very beginning of the movie sequence, and sometimes disappears before the end. That's why there are some margins which can be parametrized.
- If there is no logo during the film, you can use the manual seek commands **>[]** to find some logo at the beginning/end of the commercials sequence. That may save a lot of time compared to search "by hand".
- It is always possible, in worst cases, to define all the segments manually, as in other editors.

9. Processing parameters



Margin before : When the logo is detected, the beginning of the segment is shifted from this value (because often the logo doesn't appear at the very beginning). This parameter is stored with logo.

Margin after : Value from which the end of the segment is shifted. This parameter is stored with logo.

Min. jump : A new segment is defined is no logo has been detected during this time this doesn't include the margins. So if each margin is 10 s, and the jump is 30 s, the resulting segments are distant from $30 - 2 * 10 = 10$ s minimum.

Seach inc. : Default step between each logo detection for the dichotomy search (given the fact that if a disappearance or re-appearance is detected between two steps, the exact position is then refined frame-by-frame).

No logo : Finds the segments where logo is missing.

10. Command line arguments

<filename> : opens the file, and starts searching for a stored logo if no other argument

--segments hh:mm:ss.ss-hh:mm:ss.ss,hh-mm:ss.... : creates specified segments in the list (as the Past button does)

--save <output file> : save all the segments in the specified file

--save_splitted : each segment is saved in a separate file named <output file>_<segment number>.ts

--quit : quits Videpub after processing. If not specified, the GUI remains on screen.

Examples :

Videpub.exe --segments hh:mm:ss.ss-hh:mm:ss.ss,hh-mm:ss.... --save <output filename> --quit <input filename> : opens the file, creates specified segments in the list, saves them together in the output file, and quits.

Videpub.exe --segments hh:mm:ss.ss-hh:mm:ss.ss,hh-mm:ss.... --save <output filename> --save_splitted --quit <input filename> : idem, but saves each segment in its own numbered file.

11. Troubleshooting

In case of any trouble, please go to <http://www.arthelion.com> and select *Contact* at the bottom of the page to fill in a request for information.