

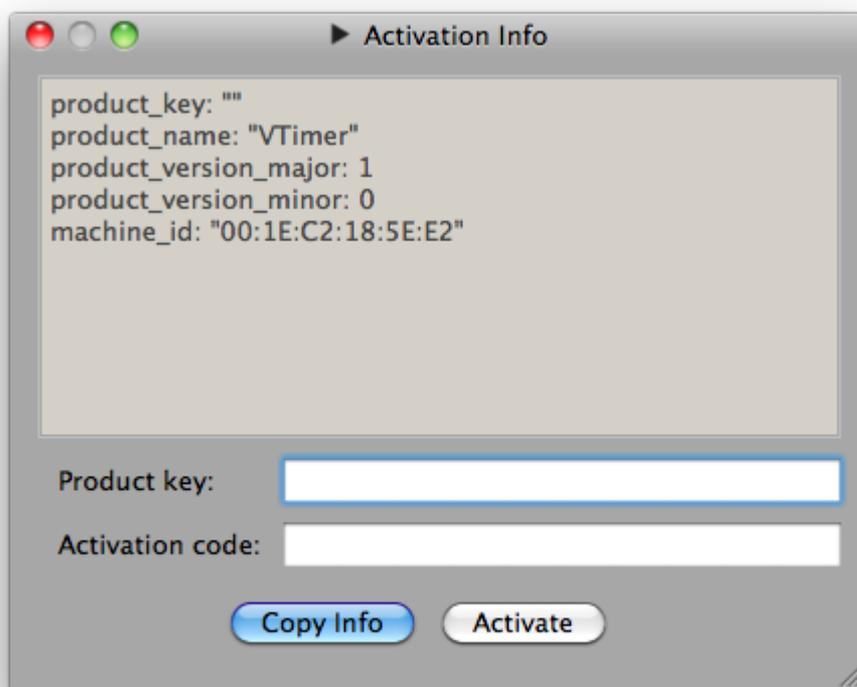
VTimer 1.0 user manual

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1. Activation and first start

Before you can start using VTimer you should purchase a product key.

First time you start the application you will be prompted to activate it.

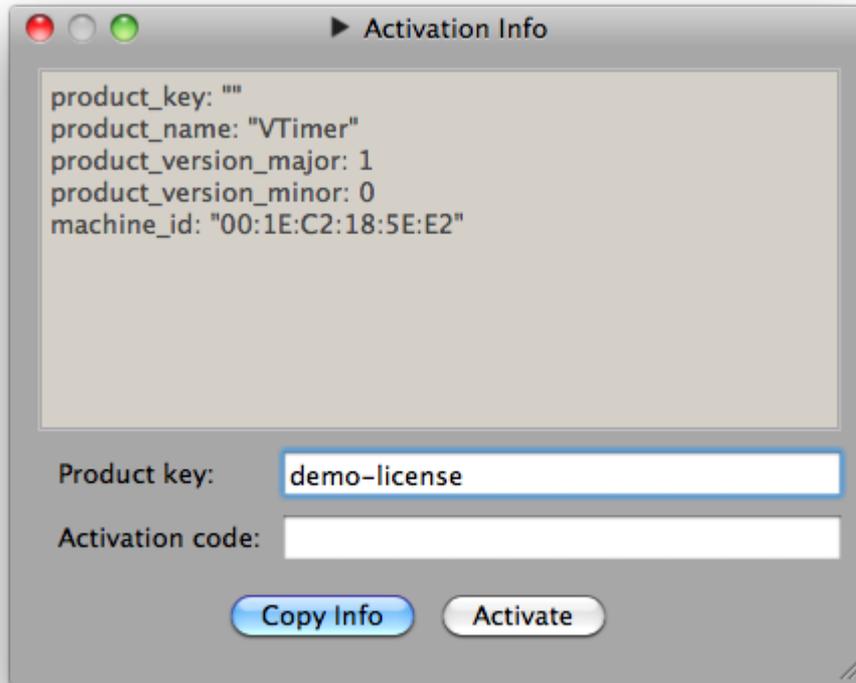


There are 2 ways to activate the product:

- over the Internet (you will need only the product key)
- manually (you will need to send email to the support team to obtain activation code)

1.1 Activation via Internet

Simply enter the product key:

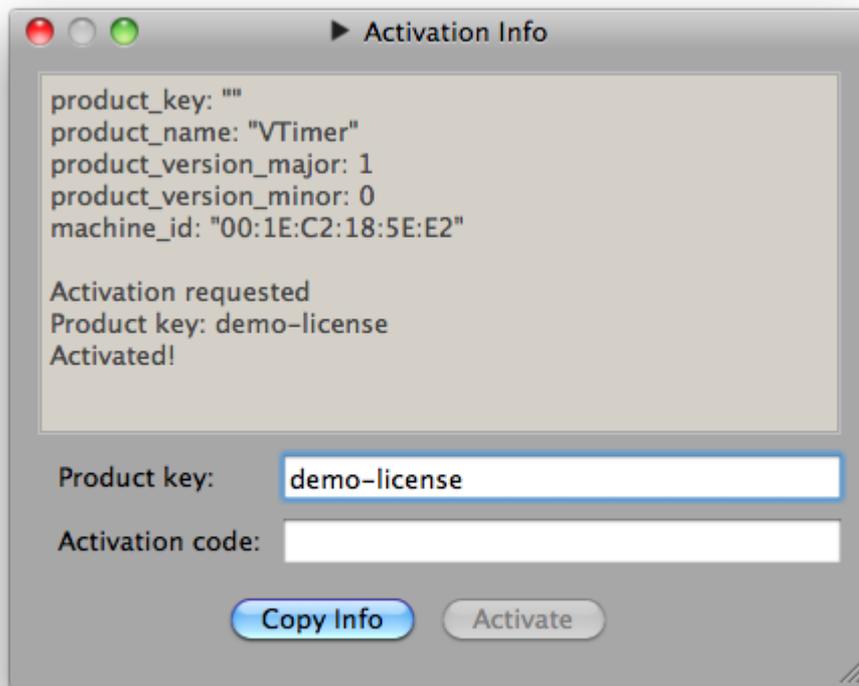


```
product_key: ""  
product_name: "VTimer"  
product_version_major: 1  
product_version_minor: 0  
machine_id: "00:1E:C2:18:5E:E2"
```

Product key:

Activation code:

And press activate:



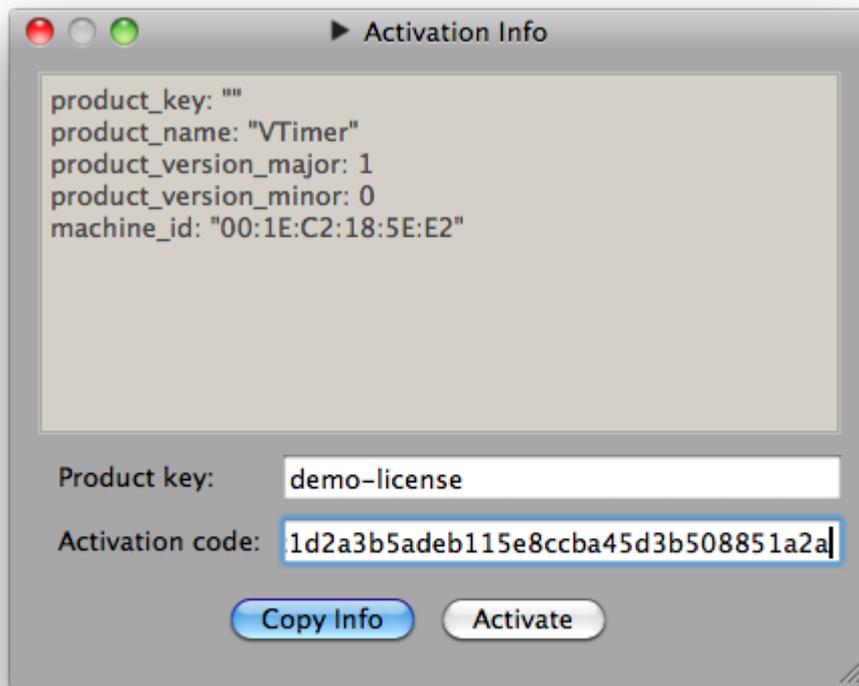
If everything went OK, you should see the "Activated!" message, and "Activate" button will become inactive. You can close the activation info window and start using VTimer.

If you don't see this message please proceed with manual registration.

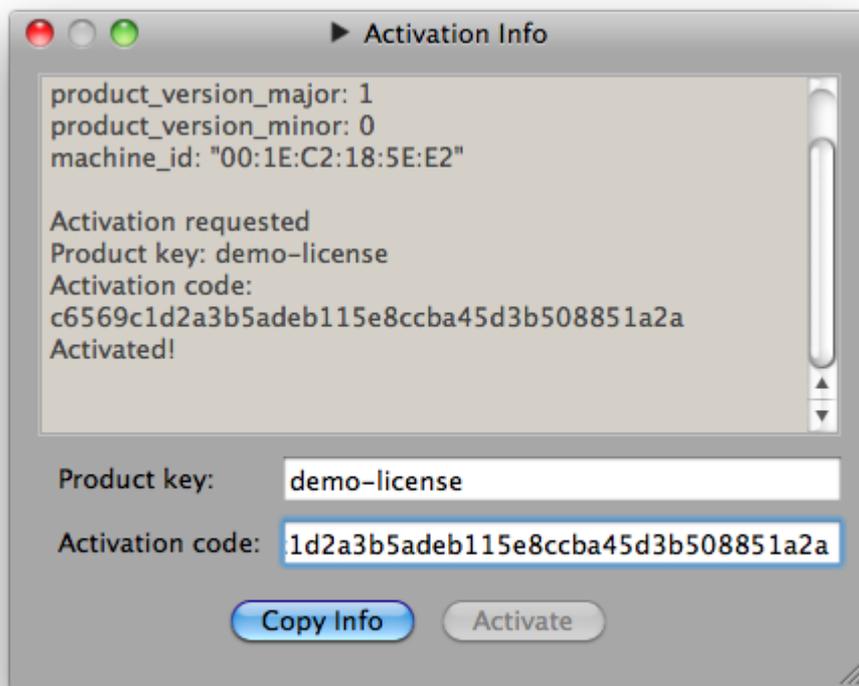
1.2 Manual activation

Press "Copy Info" button in the activation info window. This will copy the required information to the clipboard. Then send an email to support@acontests.com, with activation info in the message body (press Ctrl+V on Windows, or ⌘+V on OS X to paste it there). We will reply to you with your activation code.

Enter both product key and activation code:



And press "Activate":

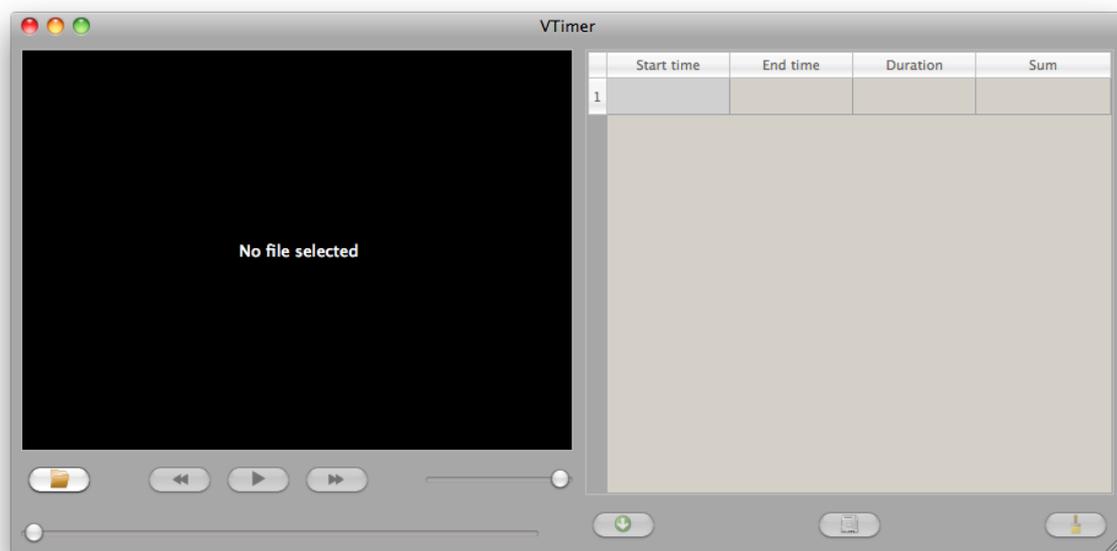


If everything went OK, you should see the "Activated!" message, and "Activate" button will become inactive. You can close the activation info window and start using VTimer.

In case of any problems please contact support@acontests.com

1.3 First start

Whether on not activation was successful closing the activation info window will bring you to VTimer's main window:



If you will ever need to bring activation info window back select "About → Show license info" from application menu.

2. Using VTimer

We strive to make VTimer as handy as possible. So we will be glad to hear any feedback at support@acontests.com.

2.1 Common operations

2.1.1 Open video

To open the video file press the "Open" button (Ctrl+O on Windows, ⌘+O on OS X).



2.1.2 Select seek step

Do not forget to select appropriate seek step for your video using "Seek step" menu. Usually you want to select seek step matching the frame rate of video.

Sometimes, however, it is necessary to have sub-frame timing precision. For example if exact landing moment is between frames. For this purpose you can select appropriate

seek step from the menu. It will allow you, for example, to move 20ms forward in 25 FPS video (that wouldn't change the frame, but will improve time accuracy).

2.1.3 Navigate through video

You can navigate through the video with arrow keys, or use GUI controls:



To play/pause video press Space key.

2.2 Measure time

VTimer 1.0 is customized for measuring the flight time for the Trampoline competitions. It allows to measure sequence of flight times and calculates sums to each skill automatically.

Because of such customization we advice you to use VTimer only for single execution videos.

2.2.1 Mark skill start/end

To measure the flight time:

Navigate to the first moment of the skill and press Enter, or



You will notice that the time was saved to the timing table. Navigate to the end of the skill (net touch) and press Enter again. You will notice that VTimer had calculated current flight time and sum of flight times up to this skill.

Navigate to the start of next skill and repeat further.

	Start time	End time	Duration	Sum
1	0:01:190	0:03:353	02:163	0:02:163
2	0:05:095	0:06:318	01:223	0:03:386
3				

2.2.2 Moments navigation and correction

All moments you've marked are automatically bookmarked, so you can navigate to them by double clicking the corresponding cell. (For example double click cell in column 1, row 2 to go to the start of the second skill)

To correct some moment, select it in the table, navigate to the more appropriate moment in the video and press Enter again.

To delete all measured data press



2.2.3 Save the data

Measured data is stored automatically inside "vtimer" folder in you home directory. So if you want to work with data only inside VTimer you do not need to do anything special to save data. Moreover - data is associated with the video contents, not the file name, so you can move and rename your video files freely.

To make any further processing of data you will need to export it. To export current video's data to CSV file (which can be opened in Excel) press



Also, you can simply select required cells with the mouse and standard copy-paste to transfer the data almost anywhere.

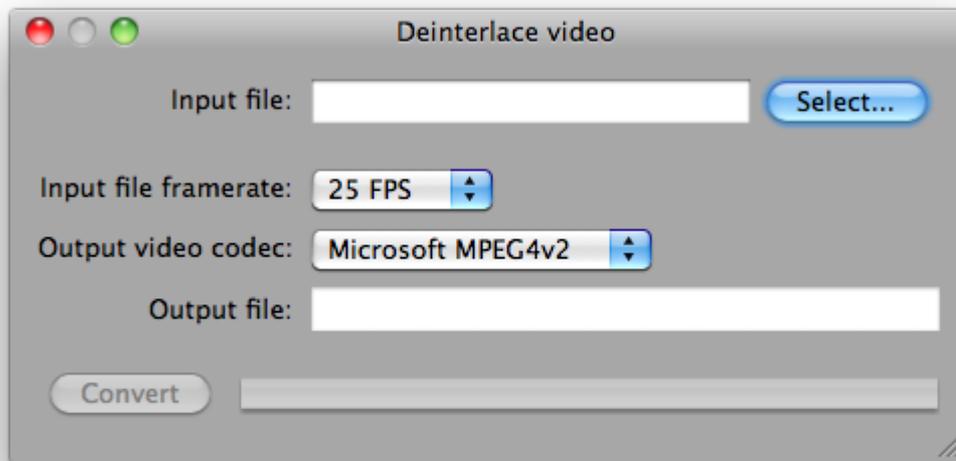
2.3 Deinterlacing video

It is relatively common for video files to be recorded interlaced: that is, each frame of the video actually contains 2 images, taken at different times, and interlaced row-by-row. While this may be acceptable for slow motion videos, for others it can create visible artifacts:

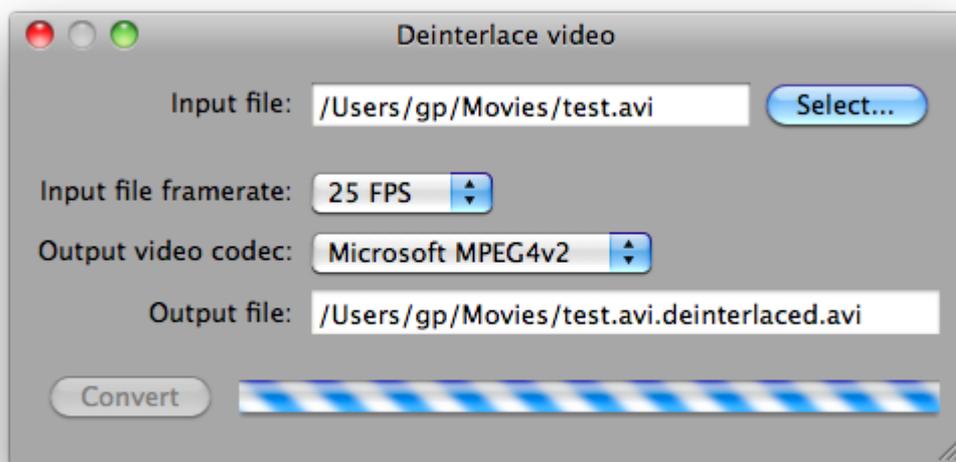


Moreover, interlaced video recorded at e.g. 50 FPS is actually played back at only 25 FPS (because 2 half-frames are required to create one "full" frame). However, smart algorithms that can transform e.g. 25 FPS interlaced DV video into 50 FPS deinterlaced one do exist.

VTimer allows you to apply deinterlacing to your videos. To do this, select "File → Deinterlace video" menu.



Select the file you want to deinterlace, specify its frame rate, and press "Convert".



Wait for VTimer to report the end of deinterlacing. It can require quite some time (usually roughly comparable to the video length), so please be patient.

To open deinterlaced video file on OS X, you'll need to install some addition video codecs. [Perian](#) is one widely-used open source codec pack.

If you are using Windows version of VTimer, and use H.264 codec for deinterlaced videos, you'll need a decoder for that as well. [K-Lite Codec Pack](#) includes suitable decoder, among others.