

macVCR

Macintosh OSX Screen Recording and Snapshot Software
MacFormat Promotion Edition



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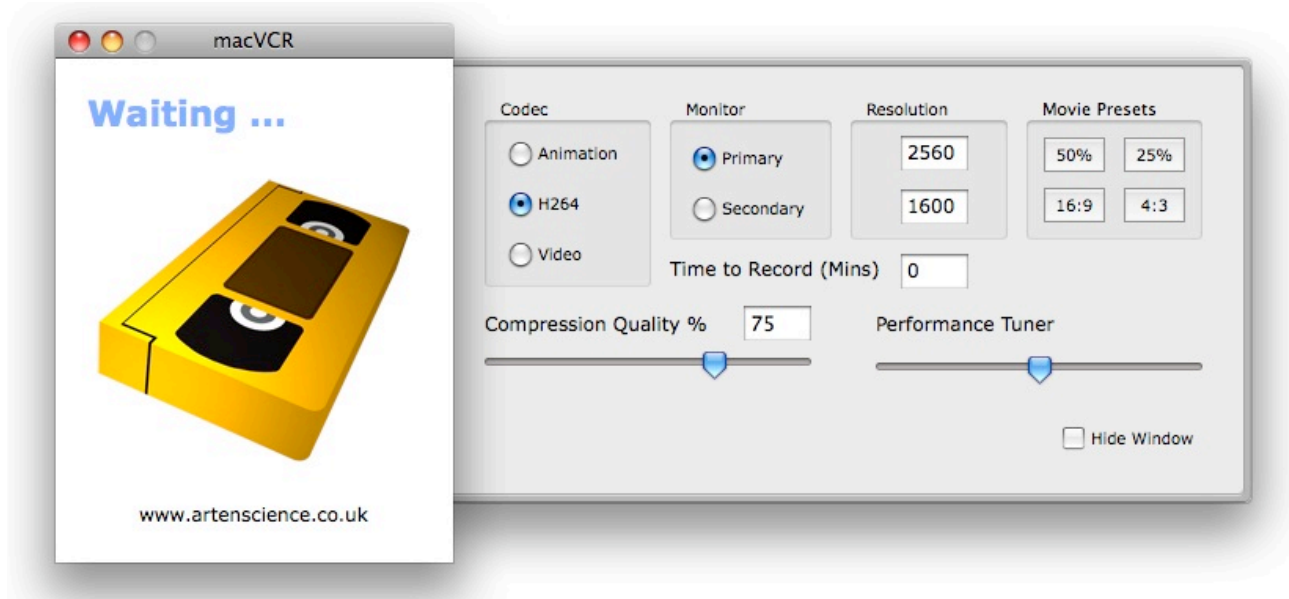
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Introduction

macVCR allows you to record what happens on your computer screen to a Quicktime movie which you can then replay at your leisure.

macVCR doesn't require any form of installation, just double click the Icon and the program will launch.

When the program is launched the main screen will appear, as shown below:



If the Drawer window doesn't appear that is because macVCR is not at the front. Click the macVCR window and the Drawer window will automatically be opened.

In addition the controls to Start and Stop the screen recording will appear on the right hand side of your Menu Bar along with the Status Items such as your Clock and Spotlight Icons. It will look similar to this:



Configuration Options

To record your screen you first need to decide whether or not you require the macVCR screen visible. If you do not then select the Checkbox to 'Hide Window During Record'. You can then adjust various settings within the Settings Drawer, shown to the right of the macVCR main window. The defaults are probably fine for most purposes but you can adjust according to preference. I have explained each of the settings below:

Compression Quality

The default is 75. Reducing this will reduce the quality of the output movie.

TTR: Time to Record

This value is in minutes. If this value is Zero then you will Stop the recording manually using the Status Item Menu. If this value is larger than Zero then you can leave the computer to stop recording when the TTR limit is reached. For example to record your screen activity for 1 hour, set the TTR to 60, and Start the recording. macVCR will stop the recording automatically after One hour.

Codecs

The Three Codec Options that are available in this release are H264, Animation and Video. Please see the section at the end of this document that explains the Codec options.

Monitor Choice

Select whether you require the recording to happen on your Primary or Secondary monitor. If you are recording a selection of screen it will override this setting and the selection will be made from the screen and area you select.

Resolution Figures

These will default to the resolution of your selected monitor. Change these to scale the output movie as you require. Note: These settings have no effect when recording the selected area. The selected area is scaled as per your selection.

Movie Presets

The default screen record area is determined by the resolution of the selected monitor. This can be changed manually by overwriting these figures. You can select from four presets. These are 50%, 25%, 16:9 and 4:3. These presets all work on the currently displayed resolution figures. For example if your default resolution on your Primary monitor is 2560 x 1600 then pressing the 50% button will set this value to 1280 x 800. Pressing the 50% button again will reduce this by a further 50%. To reset these figures to their defaults just reselect the radio button for your Primary or Secondary monitor.

Performance Tuner

macVCR now sets the appropriate best framerate according to the specification of your computer. This is necessary to keep the length of the recorded movies as accurate as possible without relying on the user to have to 'fiddle' too much with the settings.

If the recorded length of your movie is slightly less than the actual time you spent recording then it may be necessary to adjust the 'Performance Tuner' slider to the left. If the recorded length of your movie is slightly more than the actual time spent recording then you may need to adjust the 'Performance Tuner' to the right. This control is to allow for variations in the performance of individual computers running at differing clock speeds and with CPU time in use elsewhere.

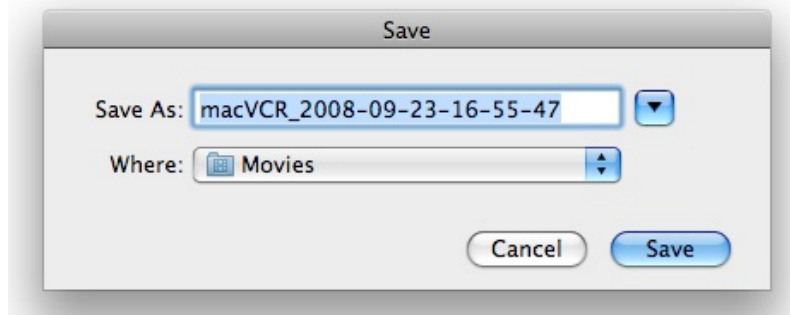
Using macVCR

Once you have configured macVCR you have two main options, both available from the Status Item Menu. This is where you Start and Stop the screen recording. When macVCR is working the Status Item Menu shows a Red button instead of the Green button shown when macVCR is not recording.

The Preferences and About windows for macVCR can be accessed in the normal fashion, by bringing the application to the front and accessing the options from your standard Macintosh menu. You can Send Feedback and Visit Our Website using the options available from the Help menu.

Before your recording starts you are asked to specify the filename to use. By default macVCR uses a format as the following:

macVCR
Year
Month
Day
Hour
Minute
Second



An advantage of using this as a default file naming convention is that you will not accidentally overwrite any previously recorded movies, purely because this filename is guaranteed to be unique at this moment in time.

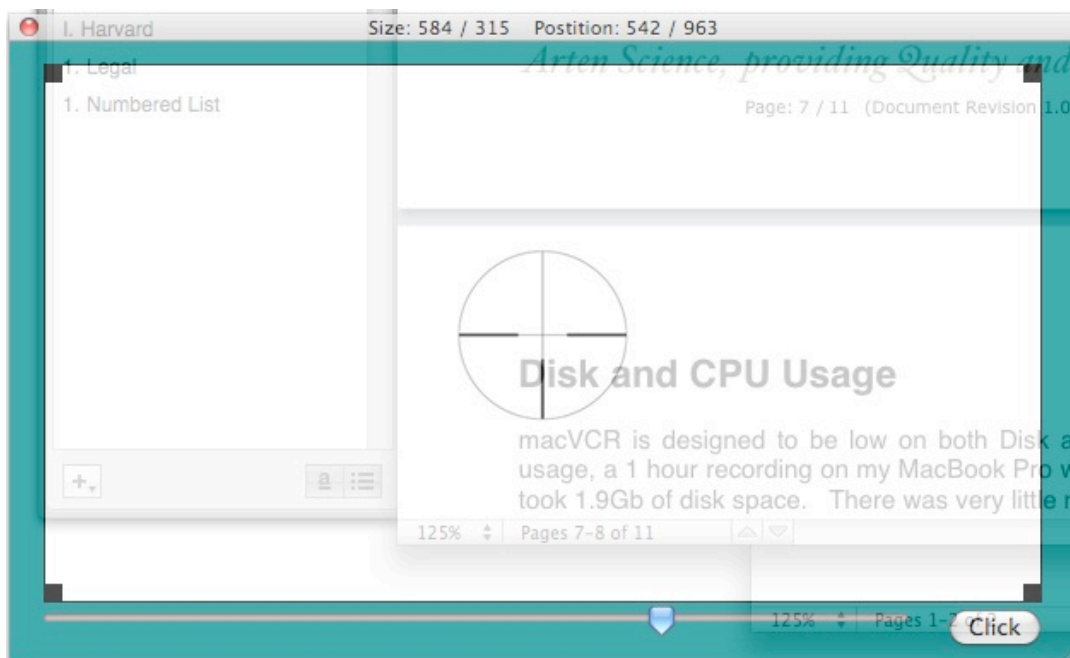
Tools Menu

Select Movie / Snapshot Area

If you select this option you will be presented with a semi-transparent window that you can resize and position over the portion of the screen you wish to record. Once this is done and you select Start from the Status Menu, only this portion of the screen will be recorded.

Do not close the Area Selector window yourself if you wish to record the selected area, macVCR will close it for you. If you close the window you will record the whole screen. Note: This process can exercise your CPU if you select a large region at high detail.

The transparency of the Area Selector window can be changed using the slider at the bottom of the window.



In addition the Area Selector now has the ability to capture a high resolution (300 dpi) snapshot of the selected area, as well as define the boundaries for the screen movie you may intend to record. The Area Selector allows the applications underneath to maintain the focus. Note: Recording an Area is very processor intensive and will only take approximately 1/3 of the frames that is possible when recording the complete screen.

Export Quicktime Movie

This option allows you to export and convert your Quicktime movie to a number of different formats suitable for Windows, iPhone, the Web etc.

Disk and CPU Usage

macVCR is designed to be low on both Disk and CPU usage. As an example of disk usage, a 1 hour recording on my MacBook Pro with 15" Screen, using the default settings, took 1.9Gb of disk space. There was very little noticeable cpu drain during the recording.

Recording from an Area Selection will however use more processing power and will likely cause a noticeable increase in CPU activity, as will recording very high resolution screens.

Trial Version Limitations

The Trial Version of macVCR is limited to recording ninety seconds of screen footage in one go. You can of course quit the program and record another ninety seconds.

The Export Movie option is not available in the trial version.

You are limited to two Screen Snapshots per session with the trial version.

In addition, a semi-transparent overlay is displayed in the centre of the monitor stating 'macVCR Trial Version'.



macVCR Trial Version

If you have any questions or need any support please do not hesitate to contact us at macvcr@artenscience.co.uk

Codecs

Note: Much of the information in the next couple of pages is sourced from Wikipedia, Codec Central and Apple

A codec is a device or program capable of encoding and/or decoding a digital data stream or signal. The word codec may be a combination of any of the following: 'compressor-decompressor', 'coder-decoder', or 'compression/decompression algorithm'.

- **Lossy codecs:** Many of the more popular codecs in the software world are lossy, meaning that they reduce quality by some amount in order to achieve compression. Smaller data sets ease the strain on relatively expensive storage sub-systems such as non-volatile memory and hard disk, as well as write-once-read-many formats such as CD-ROM, DVD and Blu-ray Disc.

- **Lossless codecs:** There are also many lossless codecs which are typically used for archiving data in a compressed form while retaining all of the information present in the original stream. If preserving the original quality of the stream is more important than eliminating the correspondingly larger data sizes, lossless codecs are preferred. Especially if the data is to undergo further processing (for example editing) in which case the repeated application of processing (encoding and decoding) on lossy codecs will degrade the quality of the resulting data such that it is readily identifiable (visually, audibly or both). Using more than one codec or encoding scheme successively can also degrade quality significantly. The decreasing cost of storage capacity and network bandwidth has a tendency to reduce the need for lossy codecs for some media.

Codecs are often designed to emphasise certain aspects of the media to be encoded. For example, a digital video (using a DV codec) of a sports event, such as baseball or soccer, needs to encode motion well but not necessarily exact colours, while a video of an art exhibit needs to perform well encoding colour and surface texture. For example, audio codecs for cell phones need to be very low latency between a word being spoken and that word being heard; while audio codecs for recording or broadcast can use high-latency audio compression techniques to achieve higher fidelity at a lower bit-rate.

H264

QuickTime 7 features a state-of-the-art video codec called H.264, which delivers stunning quality at remarkably low data rates. Ratified as part of the MPEG-4 standard (MPEG-4 Part 10), this ultra-efficient technology gives you excellent results across a broad range of bandwidths, from 3G for mobile devices to iChat AV for video conferencing to HD for broadcast and DVD.

H.264 uses the latest innovations in video compression technology to provide incredible video quality from the smallest amount of video data. This means you see crisp, clear video in much smaller files, saving you bandwidth and storage costs over previous generations of video codecs. H.264 delivers the same quality as MPEG-2 at a third to half the data rate and up to four times the frame size of MPEG-4 Part 2 at the same data rate. H.264 is truly a sight to behold.

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H.264 achieves the best-ever compression efficiency for a broad range of applications, such as broadcast, DVD, video conferencing, video-on-demand, streaming and multimedia messaging. And true to its advanced design, H.264 delivers excellent quality across a wide operating range, from 3G to HD and everything in between. Whether you need high-quality video for your mobile phone, iChat, Internet, broadcast or satellite delivery, H.264 provides exceptional performance at impressively low data rates.

Video Codec

The Apple Video codec was created to deliver fast compression and decompression of video content while maintaining decent picture quality. The Video codec's high data rate needs generally make it more suited to CD-ROM or DVD than WWW. Consider the Video codec when your material has small dimensions, or when a higher data rate is acceptable.

Animation Codec

The Animation codec is best suited for two-dimensional animation and computer-generated video content. It is lossy at quality settings from 1%-99%, and lossless at 100%. Animation at 100% is generally used as a "storage" or intermediate work format.

This codec is great for sequences of screen images, such as those captured by utilities such as macVCR. Since it is lossless, Animation at 100% will not introduce any noise into the video signal, which is why it is sometimes used instead of JPEG.

The Animation codec's performance and compression ratios are highly dependent on the images being compressed. The codec is very sensitive to picture changes and generally works best on images that have been generated synthetically.