macVCR

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Beautiful Screen Recording for Mac OSX

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Table of Contents

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Registering macVCR

After downloading macVCR and deciding that you would like a full working copy, you can purchase this directly at the following web address:

http://www.macvcr.com

Once you have done this we are automatically notified of your purchase and a User Name and Serial Number are sent out to you via email. The Serial Number is tied to your Name and the two must be used in conjunction.

When you receive the serial number email you should launch macVCR and access the Preferences menu item. The Preferences window will open, as below:
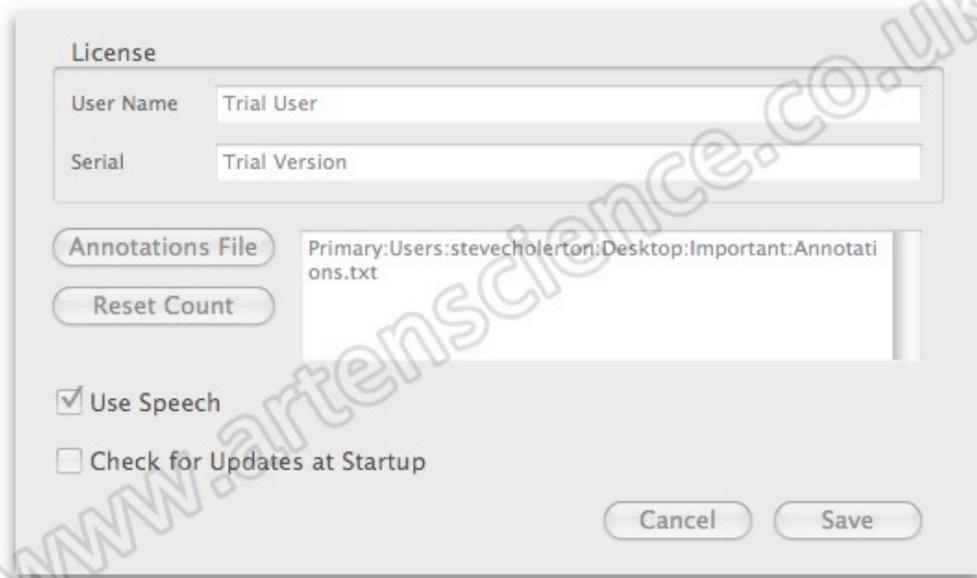
The User Name and Serial Number that you received in your email from Arten Science should be entered into the appropriate fields on the Preferences window. To avoid typing errors we suggest you Copy / Paste the information.

Once you have entered the information you should push the Save button.   If the information is correct the Trial Version Overlay will disappear and the product is then fully licensed. Keep the email from Arten Science safe as you will need it should you need to reinstall in future on a new computer.

Our licensing allows one purchase to be installed on two computers that you own, for example your desktop and also your laptop. Please respect our efforts and purchase additional licenses if you need to install on multiple computers.

Any problems with registration, please email us at: support@artenscience.co.uk

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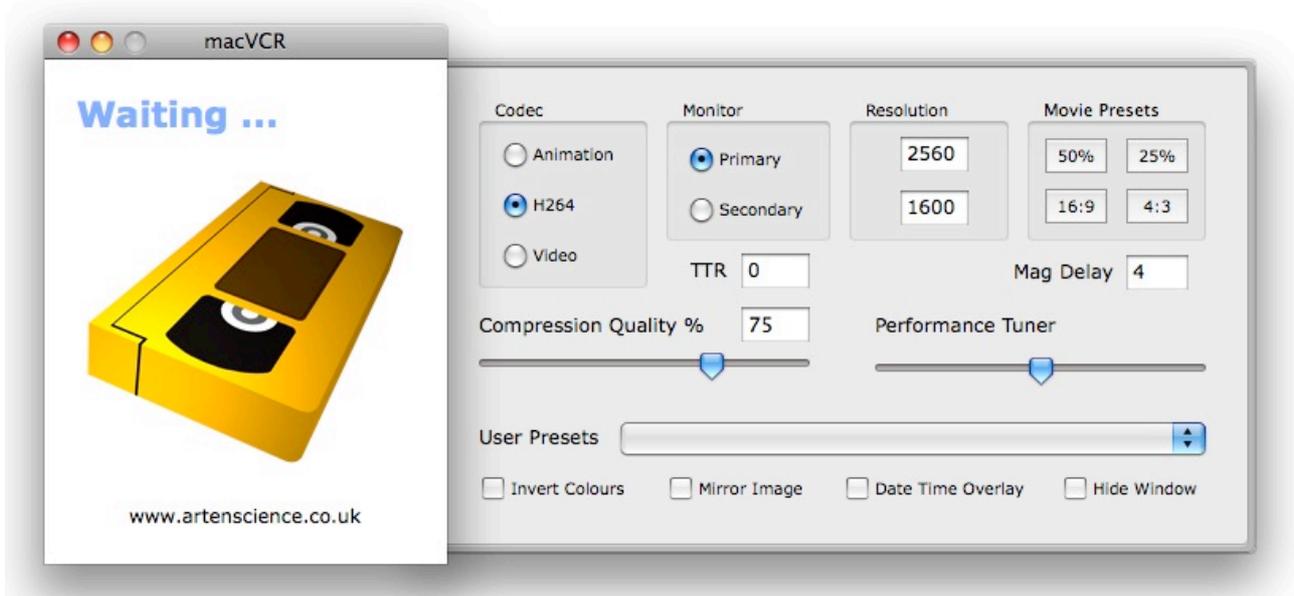
If the Drawer window doesn't appear that is because macVCR is not at the front. Click the macVCR window and the Drawer window will automatically be opened.

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:

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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.

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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.

Mag Delay

This figure is in seconds. It refers to the amount of time you wish the magnified cursor view to remain on the screen. Pressing the key combination of Shift + Option + Return will magnify the area at the mouse position for a number of seconds which is predetermined by the value you input to the 'Mag Delay' field on the Settings window.

Show Date / Time Overlay

An overlay can now be placed on the screen thats shows you a continually updated date and time. This overlay can be dragged anywhere on the screen and will be captured by the screen recording.

2008/10/05 22:40:03

User Presets

From this Popup menu you can select and apply any of your stored presets. For further information see the information under the Tools Menu section of this document.

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Invert Colours

If you select this checkbox the colours are inverted. This is probably not useful but potentially fun.

Mirror Image

As with Invert Colours this is just for fun. It turns the recorded movie upside down. It can be used in conjunction with Invert Colours if you really wanted !

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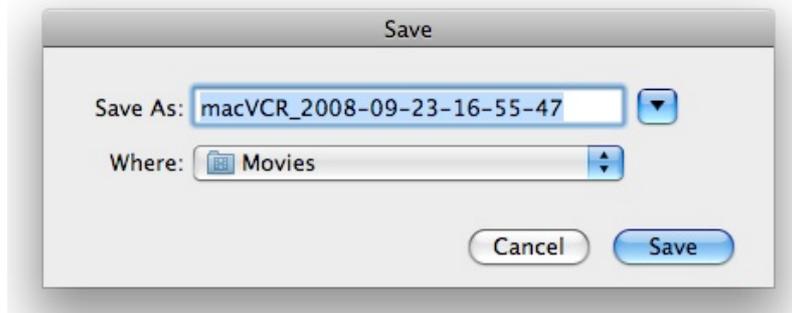
An advantage of using this as a default file naming convention is that you will not accidentally overwrite any previously recorded movies, purely because this filename is guaranteed to be unique at this moment in time.

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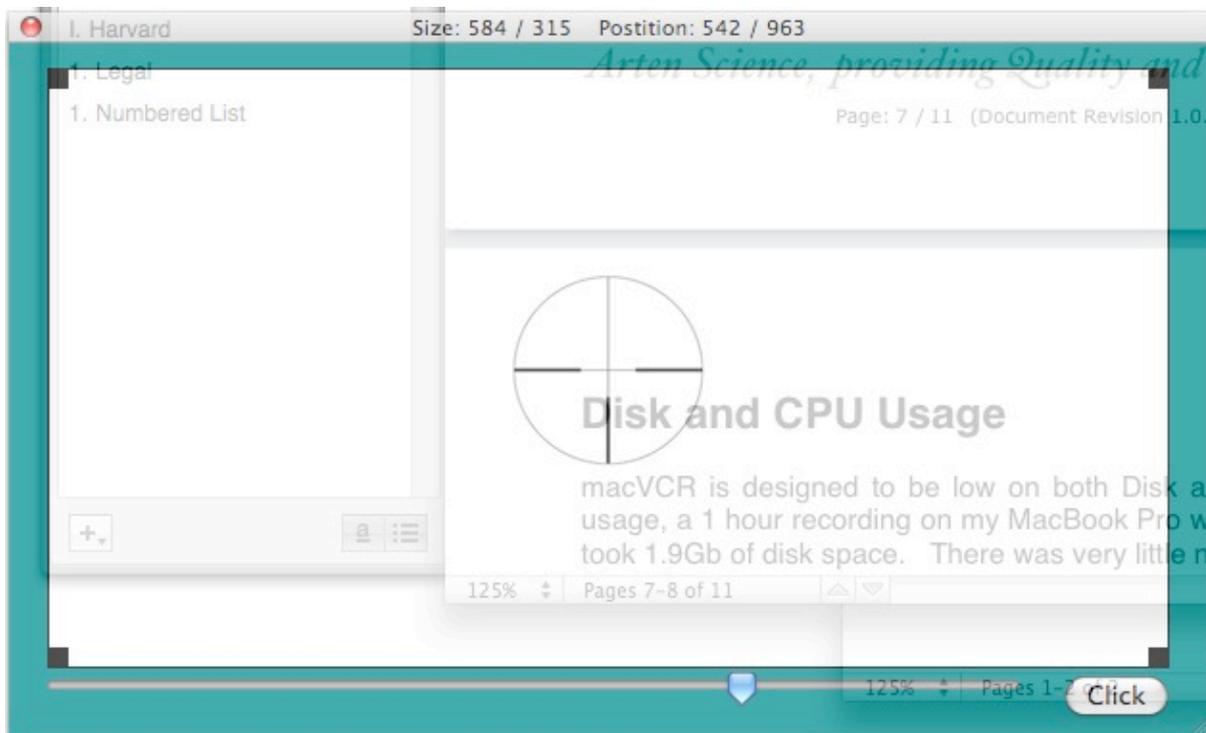
In addition the Area Selector now has the ability to capture a high resolution (300 dpi) snapshot of the selected area, as well as define the boundaries for the screen movie you may intend to record. The Area Selector allows the applications underneath to maintain the focus. Note: Recording an Area is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

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Show Live Video Camera Input

This option will display the live feed from your own web camera directly into a window on your desktop. Recording the screen then captures this feed as well. Ideal for usability testing as both the actions of the person using the computer (via the screen recording) and their own reactions as they use the computer are recorded.
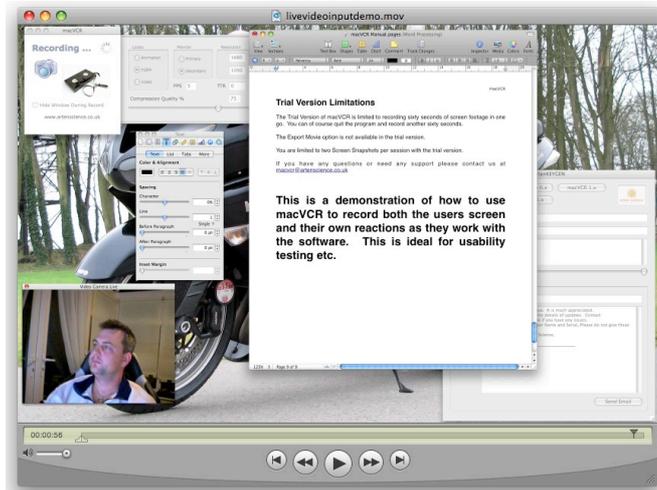
Export Quicktime Movie

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

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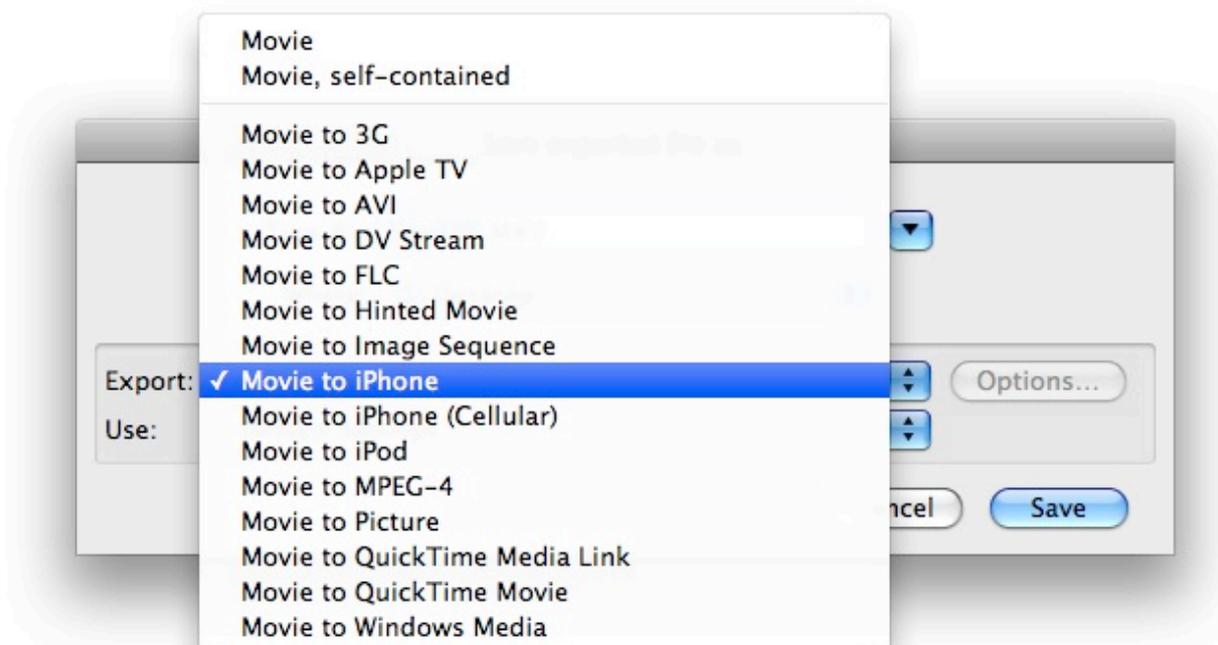
Maintain User Presets

You can save your settings under a name of your choosing as a User Preset. You can have as many different presets as you like. These User Presets can be selected from the PopupMenu on the settings screen. To Save and Delete User Presets you will use the Maintain User Presets option.
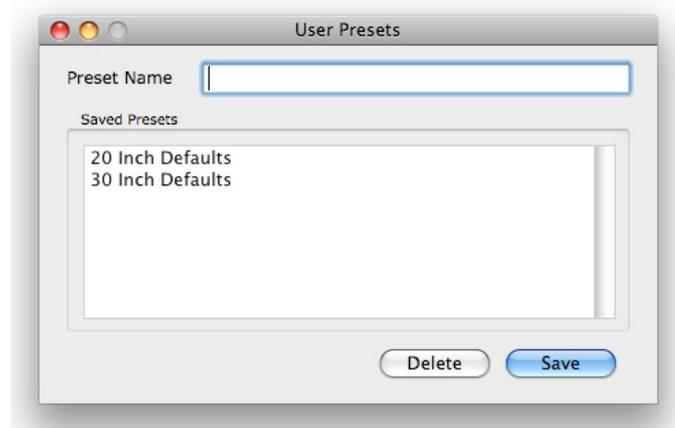
Show Volume Information

This option opens a window which shows you the total and free space on all of your attached volumes.

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Pointer Menu

Show / Hide Pointer

From this menu you can turn the Pointer on or off. The Pointer is designed to be used when you are recording screen activity for training or demonstration purposes.

When the Pointer is switched on, it appears in the centre of your screen. It is a small circular loop. It will follow the mouse automatically. When you click the mouse the pointer changes to a target 'crosshairs'. The pointer can be turned on or off using the Shift + Option + P keys.   Note the pointer will not follow the mouse when macVCR is the frontmost application. This is to allow you to control macVCR without it being recorded.

Magnify at Pointer

Pressing the key combination of Shift + Option + Return will magnify the area at the mouse position for a number of seconds which is predetermined by the value you input to the 'Mag Delay' field on the Settings window.

Annotations

macVCR supports annotations which are called in turn from a text file you have created whenever you press the key combination Option + Shift + D. The location of the text file is set within the macVCR preferences.   Annotations are displayed on your screen for four seconds as large translucent overlays, see below:

If you have created a software demonstration for example, before recording the presentation you would create a test file containing the main areas that you wish to cover during the presentation. An example text file is shown below:
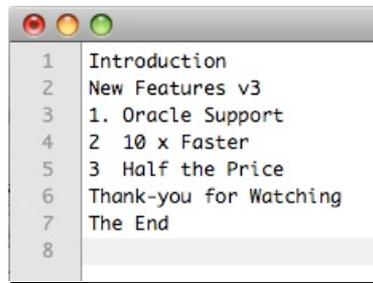
You can save this text file anywhere you like and name it appropriately.   When you load macVCR go to the Preferences screen and point macVCR to the location of your annotations file:
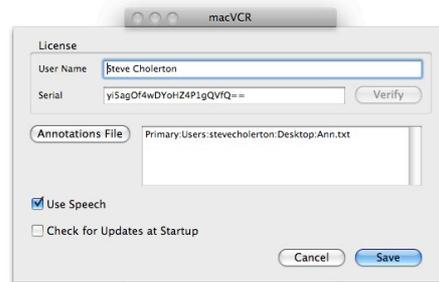
When you have started the recording you can call up your annotations one at a time in the order shown in the text file. They will be displayed on the screen for four seconds. When they have all been displayed you will have to reset the annotations counter before you can shown them again. You can reset the Annotations Count using Shift + Option + R.

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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.

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Trial Version Limitations

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

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

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Version History

Version 2.4.0

Performance when recoding a section of screen has been improved.

Version 2.2.5

Trial Version limited to 60 sixty seconds of recording.
Revised manual features complete version history and other updates.
Slight changes to the preferences window when licensing.
New hotkey: Shift + Option + R - Resets the Annotation Count

Version 2.1.7

New menu option to show total and free space on all attached volumes.
Improved User Manual.

Version 2.1.5

Maintenance Release.

Version 2.1.4

Faster Startup Time.

Version 2.1.1

We have a new Icon for this version, courtesy of Zack Weigand:
http://zwei.gotdns.com/zweisoft

macVCR now supports annotations which are called in turn from a text file you have created whenever you press the key combination Option + Shift + D. The location of the text file is set within the macVCR preferences. Annotations are displayed on your screen for four seconds as large translucent overlays.

Version 2.1.0

Fixed a bug with Sound Input Device detection. The current version of macVCR doesn't support sound and this code shouldn't have been called.

The behaviour of the pointer has been altered with 2.1. Now you can use the hotkey combination of Shift + Option + P to turn the pointer on or off. When the pointer is on it will follow the mouse and be recorded on the video output. Mouse clicks will be shown as a 'Target' crosshairs. This is a more intuitive and convenient method of recording the pointer. Note: The pointer will not follow the mouse when macVCR is the foremost application. This allows you to control macVCR without it being recorded and without switching the pointer off.

The interface has been slightly tidied up with all the options now being shown on the Settings draw. In addition you now have two additional options which are just for fun. You can Invert the colours of the recorded movie and you can Mirror the movie so that it appears upside down !

Version 2.0.0

Live Video Camera Feed You can now select an option from the Tools Menu that will display the live feed from your own web camera directly into a window on your desktop. Recording the screen then captures this feed as well. Ideal for usability testing as both the actions of the person using the computer (via the screen recording) and their own reactions as they use the computer are recorded.

Record Mouse Pointer There is a new 'Pointer' menu. From this menu you can turn the Pointer on or off. The Pointer is designed to be used when you are recording screen activity for training or demonstration purposes.

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Resolution Presets   The default screen record area is determined by the resolution of the selected monitor.   This can be changed manually by overwriting these figures.   Now in version 2 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.

Trial Version   A semi-transparent overlay is displayed in the centre of the monitor stating 'macVCR Trial Version'. The maximum length of recording for the trial version has is 60 seconds.

Date/Time Overlay   An overlay can now be placed on the screen thats shows you a continually updated date and time. This overlay can be dragged anywhere on the screen and will be captured by the screen recording.

2008/10/05 22:40:03

Speech   There is now a preferences option to turn the speech feedback on or off.

Test FPS   This menu option has now been removed, as has the option for the user to select the FPS. Instead 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.

Enhanced Area Selector / Take Snapshot   Enhanced Screen Area Selector with 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.

Menus   The *About* and *Check for Updates* menus have been moved to their correct positions on the Apple Menu.   The About window has been redesigned and menu options have been added to the Help menu to *Send Feedback* and *Visit Our Website*.

Magnify At Pointer   Pressing the key combination of Shift + Option + Return will magnify the area at the mouse position for a number of seconds which is predetermined by the value you input to the 'Mag Delay' field on the Settings window.

User Presets   With Version 2 of macVCR you can save your settings under a name of your choosing as a User Preset.   You can have as many different presets as you like. These User Presets can be selected from the PopupMenu on the settings screen. To Save and Delete User Presets you will use the Maintain User Presets option from the Tools menu.

Version 1.1.3

29th Sep 2008:   Feature: Now has the ability to record a selected region of the screen
29th Sep 2008:   Feature: Incorporates speech feedback for certain actions
29th Sep 2008:   Feature: User Manual redesigned and updated

Version 1.1.2

25th Sep 2008:   Feature: Export Quicktime Movie, from the Tools Menu
(Many Movie Format Options)

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25th Sep 2008:	Feature:	Compression is now shown as nn% as well as showing the Slider
25th Sep 2008:	Feature:	Check for Updates menu now available.
25th Sep 2008:	Feature:	Refined the AutoUpdate Procedure.

Version 1.1.0

24th Sep 2008:	Feature:	FPS and Frame Interval (ms) shown prior to recording
24th Sep 2008:	Feature:	Adjustable Output Resolution
24th Sep 2008:	Feature:	New Tools Menu, Option to calculate Max FPS
24th Sep 2008:	Feature:	Support for Multiple Monitors
24th Sep 2008:	Fix:	A small timing issue has been resolved

Version 1.0.0

| 23rd Sep 2008: | Initial Stable Release. |

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Addendum 1: Codecs

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

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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.

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Addendum 2: Frequently Asked Questions

Q: How do I get support ?
A: Please email support@artenscience.co.uk

Q: Do you do corporate or site licensing ?
A: Yes, a site license is available from our online store.

Q: Do you do discounts for education ?
A: Yes, please enquire via email to licensing@artenscience.co.uk

Q: How do I purchase ?
A: www.macvcr.com

Q: Do you do other products ?
A: Yes, www.artenscience.co.uk

Q: Are trial versions available ?
A: All our products can be downloaded and used before purchase

Q: Do you offer a money back guarantee ?
A: Yes, 30 days.

Q: Do you offer telephone support ?
A: No, not currently. This may change in the future however.

Q: How do I register ?
A: Open the program preferences and input your name and serial number.

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Addendum 3: Arten Science and macVCR

Arten Science was setup in the UK in 2007 to design, develop and market quality commercial software for the Apple Mac OSX (Universal Binary), Windows XP / Vista and Linux with GTK+ 2.x.

We also provide Bespoke Software Development and Technology, Database and Security Consultancy services.

In addition to creating new solutions for our customers, all of our commercial products can be tailored, modified and enhanced to suit your specific requirements.

Arten Science can help you to use software to solve business problems and create business opportunities.

macVCR was written using REALbasic 2008.

http://www.realsoftware.com/

The author is Steven Cholerton.

http://www.lonelyhacker.net

Version Control by Cornerstone and Subversion

http://www.zennaware.com/cornerstone/

Additional functionality was added by the use of plugins from MonkeyBread Software.

http://www.monkeybreadsoftware.de/

Coffee supplied by Caffitaly.

http://www.caffitaly.com/en/offerta-aromi-caffe.asp

This manual was written on a 8 Core MacPro using Pages.

http://www.apple.com/iwork/

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Addendum 4: End User License Agreement

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