**Screen Recording Tools**

**Requirements**

It is sometimes necessary to capture what is happening on computer screens as a video for demonstration and other purposes.

The software to do this should be free, easy to use, capable of recording audio, be in full color and at high definition. The software should be able to capture all or part of a screen and in a variety of formats.

**Main Contenders**

[**AviScreen**](http://download.cnet.com/AviScreen-Classic/3000-13633_4-10394588.html)

AviScreen is an application for capturing screen activity in the form of AVI video or bitmap images. Beside the usual options defining the capture area, AviScreen has a unique feature called “follow the cursor”. Using this mode you can produce a video or image of relatively small dimensions while covering all mouse activity over the whole screen area. You may stop or pause the video capture at any moment. Allow a delay before stopping or pausing the capture by leaving the cursor in its last position, then use the shortcut key or the popup menu to stop/pause. If you use the popup menu to stop/pause the capture, the process will also be captured and may need to be trimmed later. When the computer is slow or very busy, sometimes it is necessary to hit the shortcut key several times before it works.

[**BB FlashBack**](http://www.bbsoftware.co.uk/products.aspx)

Record a commentary or PC sounds while recording the screen. Record a window, region or full screen. BB FlashBack Express free screen recorder has an easy to use interface that makes it a breeze. Review your recording frame by frame with the movie player. The BB FlashBack Express free screen recorder has one-click upload to YouTube, Blip.tv, Viddler and Revver. Share your movie by sending a URL or embed it in a webpage. Save recordings in Flash or AVI formats with full control over file size and quality. Customizable, media-player style playback controls in Flash exports. Give your presentations the personal touch with picture-in-picture webcam video. The BB FlashBack Express free screen recorder records from your webcam while it records your screen.

[**CamStudio Screen Recorder**](http://graphicssoft.about.com/cs/screencapturepc/gr/camstudio.htm)

CamStudio is able to record all screen and audio activity on your computer and create industry-standard AVI video files and using its built-in SWF Producer can turn those AVIs into lean, mean, bandwidth-friendly Streaming Flash videos (SWFs). CamStudio can also add high-quality, anti-aliased (no jagged edges) screen captions to your recordings in seconds and with the unique Video Annotation feature you can even personalise your videos by including a webcam movie of yourself "picture-in-picture" over your desktop. And if all that wasn't enough, CamStudio also comes with its own Lossless Codec that produces crystal clear results with a much smaller filesize compared with other more popular codecs, like Microsoft Video 1.

You have total control over the output of your video: you can choose to use custom cursors, to record the whole screen or just a section of it and can reduce or increase the quality of the recording depending on if you want smaller videos (for emailing to people, for instance) or you can have "best quality" ones for burning onto CD/DVD. But all of these features would be worthless if CamStudio wasn't easy to use ... fortunately that's not the case. CamStudio can be learned in a matter of minutes and comes with a comprehensive built-in helpfile, so if you do manage to get stuck, you can simply hit "Help" and get the answers you need.

**[Free Screen Recorder](http://www.nbxsoft.com/screen-recorder.php)**

From NBXSoft. Free Screen Recorder is an easy-to-use screen recording program to capture screen activities and sounds to standard AVI video file. If you move the cursor, launch a program, type some text, click buttons, select some menus - anything you see on the screen - Free Screen Recorder will record all these, and sound from your system microphone. You can choose the output AVI file's video codec, framerate, audio codec, frequency; You can choose the cursor's display, to be actual cursor or custom one as you like, and you can add highlight to it. Record any part of the screen or even the entire desktop, with just a few clicks, or custom hotkeys. Free Screen Recorder is an ideal tool to make software demonstrations, develop videos for training and tutoring.

[**Free Screen to Video**](http://www.koyotesoft.com/indexEn.html)

From Koyote. Free Screen to video is a freeware designed to record your computer screen activity in video. You can record the whole screen or only some areas of the screen in FLV, AVI, SWF (Flash) or WMV formats. Free Screen to Video is very easy to use and also records the movements of the mouse as well as the sound coming from your microphone. You can thus very easily create videos for help desk, online help, training, education and distance learning. The video formats FLV and SWF do not need any additional CODECS installation. Everything is included in the software. You can automatically create web pages from your FLV videos, publish them on your web site and share them with the whole wide world Since it is entirely configurable, you can adjust the parameters of recording quality to get videos which really suit you (Fps, bitrate, video size, audio frequency, channels…).

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Free Screen to video is a freeware designed to record your computer screen activity in video. You can record the whole screen or only some areas of the screen in FLV, AVI, SWF (Flash) or WMV formats. Free Screen to Video is very easy to use and also records the movements of the mouse as well as the sound coming from your microphone. You can thus very easily create videos for help desk, online help, training, education and distance learning.

The video formats FLV and SWF do not need any additional CODECS installation. Everything is included in the software. You can automatically create web pages from your FLV videos, publish them on your web site and share them with the whole wide world. Since it is entirely configurable, you can adjust the parameters of recording quality to get videos which really suit you (Fps, bitrate, video size, audio frequency, channels…).

[**Free Screen Video Recorder**](http://www.dvdvideosoft.com/products/dvd/Free-Screen-Video-Recorder.htm)

From DVDVideoSoft. Free Screen Video Recorder is a compact, yet full-featured screen video recorder and screenshot capture tool that allows you to easily record screen activities and capture anything on the screen including windows, objects, menus, full screen and rectangular regions. You can choose to save captures to file, clipboard or print them out directly from the program window. Built-in editing tools include basic functions like resizing, cropping and rotating. Free Screen Video Recorder saves video files as AVI and image files in BMP, JPEG, GIF, TGA or PNG formats. Free Screen Video Recorder contains no spyware or adware. It's clearly free and absolutely safe to install and run.

[**Freez Screen Video Capture**](http://www.smallvideosoft.com/index.php)

Freez Screen Video Capture is a screen-capture & screen-recording tool to record screen activities and sounds into standard AVI video files. You can record any part of the screen's activities and the cursor's movements, using a microphone to narrate your screen recordings. You can choose the output video's compressor (such as Microsoft Video 1, MPEG-4, DivX...), quality, framerate, audio format (such as PCM, ADPCM, MP3, OGG...), and volumn. You can also start, pause, and stop screen recording with hotkeys. Use Freez Screen Video Capture to create screen demos, training videos, animated tutorials, animated presentations etc.

**[Grabilla](http://grabilla.com/)**

You can take a screenshot of entire screen or just of part of screen, get it uploaded to our server and you have a link to share - all this in single click. Want to record a video of your desktop activity, want to share a screencast - no additional clicks required. Just select an area and press Record button - your video will be recorded. When you finish you can choose to save a video or upload it to Internet. How to take a screenshot or record a screencast in one click? You don’t have to use complicated software or upload your files somewhere, just run this simple windows program to take a screenshot with single click and share it with friends. Simple as 1-2-3. P.S. You can record a screencast too!

[**HyperCam**](http://www.hyperionics.com/)

HyperCam captures the action from your Windows screen and saves it to AVI (Audio-Video Interleaved) movie file. Sound from your system microphone is also recorded. Please note that HyperCam is not intended for re-recording of other video clips from the screen (e.g. playing in Media Player, RealVideo, QuickTime etc.), but rather for creating regular software presentations, tutorial, demos etc. If you still want to try it for re-recording other movie clips. HyperCam supports text annotations, sound, and screen notes (great for creating automated software demos and software training!). You can also select Frame rate and compression quality prior to recording your movie.

[**Jing**](http://www.jingproject.com/features/)

Take a picture or make a short video of what you see on your computer monitor. Share it instantly via web, email, IM, Twitter or your blog. Simple and free, Jing is the perfect way to enhance your fast-paced online conversations.

[**Microsoft Expression Encoder 4**](http://www.microsoft.com/downloads/en/details.aspx?FamilyID=5c3c5f97-678c-4c99-a7fc-f84f320c626f)

Expression Encoder is an advanced audio/video-encoding and live-broadcasting application especially suited for generating content that takes full advantage of the rich graphic and interactive capability of Microsoft Silverlight playback scenarios. You can also generate Windows Media video and audio files that are optimized for other web playback scenarios, or appropriate for playback on portable devices. The service pack provides support for for GPU encoding to H.264 with CUDA-based NVIDIA graphics cards, live template support, and live screen capture, among other features, as well as bug fixes and stability enhancements. This free version of Expression Encoder 4 does not include support for IIS Smooth Streaming and H.264 encoding.

**[SMRecorder](http://www.video2down.com/)**

Record desktop motion and sound/Micro voice into AVI for presentation/demo/tutorial or for share. Capable of synchronizing recorded video and audio. Support screen annotation. Record any sound from PC or Micro into MP3. Capable of capturing camera video and audio. Very easy to use with simple configurations. Multi-language user interfaces.

**[TAKSI](http://taksi.sourceforge.net/)**

Taksi is a utility that allows you to take screenshots and record video clips of your favourite games and other 3D-graphics applications. Inspired by Fraps (www.fraps.com), Taksi aims to provide an open source alternative to that great tool. Taksi can support live video compression with any VFW video codec your system has installed (i.e. XVid, DivX, MS Mpeg4, etc). Supports user-specified key mapping, allowing user to assign almost any key to a particular function (such as video start/stop, screenshot trigger, etc.). Runtime re-mapping of the keys is supported via GUI: user can change keys without having to restart the game. Custom video settings are supported. Basically, this allows a user to specify on a per-game basis the frame rate of the captured video, and the weight of each source frame. The weight determines whether a particular frame is captured or not. This allows for creation of smoother and faster videos, when generic algorithm doesn't produce desired results.

[**UltraVnc Screen Recorder**](http://www.uvnc.com/screenrecorder/)

There exist a lot of screen recorders, but all lack the speed for doing some full screen recording. The speed is just to low or cpu to high. Online compression can only be done with some real-time disk eating codecs. As i needed something faster to make some manuals, i found it quite similar to the speed problem that VNC has. I guess most screen recorders use the same vnc capturing method under the hood. Integrating the mirror driver was a real speed boost, 1280x1024x15Fps + online divx compression. The screen recorder is build with the old Rendersoft camstudio source, we didn't wrote the whole thing ourself. We just removed and added some code to make it faster. The about box give the acknowledgment to the original creators.

**[UTipU Tipcam](http://www.utipu.com/%22%20%5Ct%20%22_blank)**

TipCam is the easiest-to-use professional screen recording software for Windows. PC Magazine chose TipCam as one of the best software products in 2009 and described it as follows: TipCam lets you take big, beautiful videos (up to 800 by 600 pixels)—you can even zoom in on specifics—and upload them direct to YouTube. TipCam is the screen recording software of choice by many Fortune 500 companies yet is so easy to use because of its intuitive, iPhone-like interface.

[**VidShot Capturer**](http://www.geovid.com/VidShot_Capturer/)

VidShot Capturer created for quick screen capturing. You can use VidShot Capturer for capturing anything you see on your PC desktop and record them to video. You can capture windows, region, the entire desktop and even cursor moving. VidShot Capturer helps you for demonstrating features of your website, for making movie, presentation and any other task requires desktop activity capturing. It is very easy and fast for to use. You just select windows or region or desktop and pull “start” button. More over VidShot Capturer allows you to adjust the frames of the video. It has an easy to use interface that’s why you can manage it, even if you're new to making screen captures.

[**Webcam Video Capture**](http://download.cnet.com/Webcam-Video-Capture/3000-13633_4-10671720.html)

Capture webcams, streaming video, full screen, part of the screen and even video with sound. Seeing is believing! Use Webcam Video Capture to make people witness what you want to convey through an audio-visual medium. There are times when sharing exactly what you see on your screen is the quickest and clearest way to communicate. Capture and Share Anything : Webcam(s), any window, part of the screen or full screen to AVI or WMV video formats.

[**Webinaria**](http://www.webinaria.com/record.php)

Create demos with our open source and 100% free (no watermark or limitations) screen recording software. Create Flash (AVI to FLV) recordings of your desktop. Record voice commentary or with your presentation or demo. Save/edit your recordings to add voice, webcam or text.

**[Wink Tutorial and Presentation Creator](http://www.debugmode.com/wink/)**

Wink is a Tutorial and Presentation creation software, primarily aimed at creating tutorials on how to use software (like a tutor for MS-Word/Excel etc.) Using Wink you can capture screenshots, add explanations boxes, buttons, titles etc. and generate a highly effective tutorial for your users. Freeware: Distributed as freeware for business or personal use. However if you want to redistribute Wink, you need to get permission from the author. Cross-Platform: Available for all flavours of Windows and various versions of Linux (x86 only). Audio: Record voice as you create the tutorial for explaining better.

Input formats: Capture screenshots from your PC, or use images in BMP/JPG/PNG/TIFF/GIF formats. Output formats: Macromedia Flash, Standalone EXE, PDF, PostScript, HTML or any of the above image formats. Use Flash/html for the web, EXE for distributing to PC users and PDF for printable manuals. Multilingual support: Works in English, French, German, Italian, Danish, Spanish, Serbian, Japanese, Brazilian Portuguese and Simplified/Traditional Chinese. Smart Capture Tools: Capture screenshots automatically as you use your PC, based on mouse and keyboard input (great time saver and generates professional captures). Performance/Quality: Creates highly compressed Flash presentations (few kbs to few hundreds of kbs, much smaller than competing commercial products) ideal for using on the web.

**Results**

**AviScreen**

Cannot capture audio
Good color rendition
Preselected, custom and full screen captures
AVI format
Nickelsburg capture – good color rendition
Rollercoaster capture – jumpy
Can turn cursor off
Can only use the main screen of a 2 screen setup
Difficult to remember what is being recorded – no square around objects being recorded.
Controls disappear during recording – tough luck if you can’t remember hot key.

**BB Flashback Express – Good**

Good color rendition
Preselected, custom, window and full screen captures
AVI and SWF format
Nickelsburg capture – good color rendition
Rollercoaster capture – good
Cursor is highlighted, cannot turn cursor recording off
Needs free registration

**CamStudio - OK**

Poor color rendition – Banding of color gradients
Preselected, custom, window and full screen captures
AVI and SWF format
Nickelsburg capture – Banding of color gradients
Rollercoaster capture – good

**Free Screen Recorder**

Just a rip-off of CamStudio

**Free Screen to Video – Great**

Good color rendition, no color banding on gradients
Custom size screen capture as well as window or entire screen
AVI, SWF, FLA, WMV format
Nickelsburg capture – good
Rollercoaster capture – good

**Free Screen Video Recorder**

Absolutely horrible quality and installs other software you don’t want or need.

**Freez Screen**

Poor color resolution. Banding of color gradients
Resizable or whole screen capture
AVI format
Nickelsburg capture – color banding of gradients
Rollercoaster capture – jerky, sound is not accurately reproduced

**Grabilla - Horrible**

Severe color banding and color shifting.
Saves as WMV file

**HyperCam**

Poor color resolution. Banding of color gradients
Resizable or whole screen capture
AVI format
Nickelsburg capture – color banding of gradients
Rollercoaster capture – video and audio seriously out of sync. Video plays too fast.

**Jing**

Good color rendition
Custom size screen capture
SWF format
Nickelsburg capture – good
Rollercoaster capture – Very jerky video

**Microsoft Expression 4 - Good**

Good color rendition
Custom size screen capture
WMV format
Nickelsburg capture – good
Rollercoaster capture – good
This is a big program that takes a bit longer time to encode but the results are good.

**SMRecorder - OK**

Banding of color gradients
Resizable or whole screen capture
AVI format
Nickelsburg capture – color banding of gradients
Rollercoaster capture – good

**Taksi – Horrible**

Confusing interface
Banded color gradients
Full screen capture only
No audio capture

**UltraVnc Screen Recorder - Horrible**

Based on CamStudio but doesn’t work. Couldn’t record the Nickelsburg video.

**UTipU Tipcam**

This is really a commercial program and the free version files are watermarked and so not tested.

**VidShot Capturer**

A commercial program and so not tested

**Webcam Video Capture**

A commercial program and so not tested

**Webinaria**

The video is very distorted. Not at all useful.

**Wink – Good**

Good color rendition
Preselected, custom, window and full screen captures
SWF format
Nickelsburg capture – good color rendition
Rollercoaster capture – good

**Conclusions**

As usual, some websites seem to have problems with the word “free”. Free to download does not mean free to use which is what I was looking for.

I couldn’t get some of this software to work properly, which may have just been me or the computers I tested it on.

#### The best of the software I tested I thought was Koyote’s Free Screen to Video v1.2 - <http://www.koyotesoft.com/indexEn.html>. It was easy to use and gave outstanding results.

#### Other good software I tested was

#### BlueBerry’s BB FlashBack - <http://www.bbsoftware.co.uk/BBFlashBack.aspx>

#### Microsoft’s Expression Encoder 4 - <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=5c3c5f97-678c-4c99-a7fc-f84f320c626f>. This is a huge application compared with the others but did give good results.

#### Debugmode’s Wink - <http://www.debugmode.com/wink/>. From the maker of Wax and WinMorph – need I say more? Like Microsoft’s Expression Encoder 4 it is a complete program to produce tutorials from screen shots or video recorded from the screen.

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