

Camtasia Getting Started Guide

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NOTE: Screen captures were made with SnagIt; annotations were made with SnagIt Studio.

1. Introduction

What is Camtasia?

Camtasia is a screen camcorder and video production tool. It's actually three separate program modules, each a powerful program designed to aid in the creation (recording) and production (editing) of desktop video and audio. These desktop videos are capture sessions that show all of the movements and actions that occur on your computer screen for a defined time. These handy tools allow you to show others what actions you took or what actions they should take—ideal for training or sharing procedures. You control all the action and you can prepare the results to help get across the points you need to make.

- You can use **Camtasia Recorder** to record screen activity as a moving desktop video. Recorder saves the action as an AVI file. This is a series of frame captures that record all movement and actions on your computer screen. If you want, you can add sound with a microphone as you record.
- Next, you can open the AVI files in **Camtasia Producer** to remove unwanted frames, change the sequence of events or timing, and splice together the pieces into a longer presentation. Producer also allows you to save your file in the final output form (standard AVI, Microsoft Windows Media, or RealNetworks RealMedia).
- At any point during production, you can use **DubIt** as your sound editor. This simple program gives you powerful audio dubbing capabilities.

Some of the many uses for Camtasia-produced videos include: introducing new software (demonstrate features), training new users of existing software (show procedures), recording sequences to show others how to do something, or creating any kind of active documentation.

About this Document

Use this document as a guide to installing Camtasia, getting the most from the many features, and obtaining help if you need it. Take a few seconds to find the sections you need:

- **Chapter 1, this Introduction**, describes the basic product capabilities and guides you on finding more information.
- **Chapter 2, Installing Camtasia**, shows how to install the product from CD-ROM or from TechSmith's website.
- **Chapter 3, Using Camtasia**, tells how to use the products to create your own desktop videos.
- **Chapter 4, Video Performance**, tells you what you need to know about video codecs (encoder-decoders) and system performance. You'll also learn how to achieve the best results for your videos.
- **Chapter 5, Support**, describes the technical support resources you can access should the need arise. A handy Frequently Asked Questions (FAQ) section addresses the most common problems or questions you might encounter.

2. Installing Camtasia

System Requirements

To run Camtasia Recorder and Producer, your system must meet these specifications:

- Microsoft Windows 95 OSR2, 98, Me, NT 4.0, 2000 or later version
- 90 MHz processor (400 MHz recommended)
- 16 MB RAM (64 MB recommended)
- Windows-compatible sound card and microphone (recommended)
- 12 MB of hard-disk space for program installation

For special requirements such as large screen area captures or high frame rates, you should review the suggestions in Chapter 4, Video Performance.

Installing Camtasia from CD-ROM

The installation program **setup.exe** installs both Camtasia Recorder and Camtasia Producer, two related programs you will be using together. You must have Microsoft Windows 95 OSR2, 98, Me, NT 4.0, 2000 or later version installed before installing Camtasia.

1. Start Windows, if you haven't already done so.
2. Insert the Camtasia CD-ROM into the CD-ROM drive. Camtasia Setup should start automatically when you close the drive.
3. If the setup program does not automatically start, or if you have Camtasia on a diskette, perform the remaining steps.
4. Find the program named **setup.exe**, on the CD. Double-click it. Camtasia Setup starts.
5. Follow the instructions given by the setup wizard for correct installation of the product.

Installing Camtasia from www.techsmith.com

You can purchase additional copies of Camtasia from our web site. Go to **www.techsmith.com** and follow the directions there for downloading an evaluation copy of the software. Then, when you use the software, use menu choices Help > Register Camtasia to go through purchase and registration. It's quick and easy!

Installing DubIt

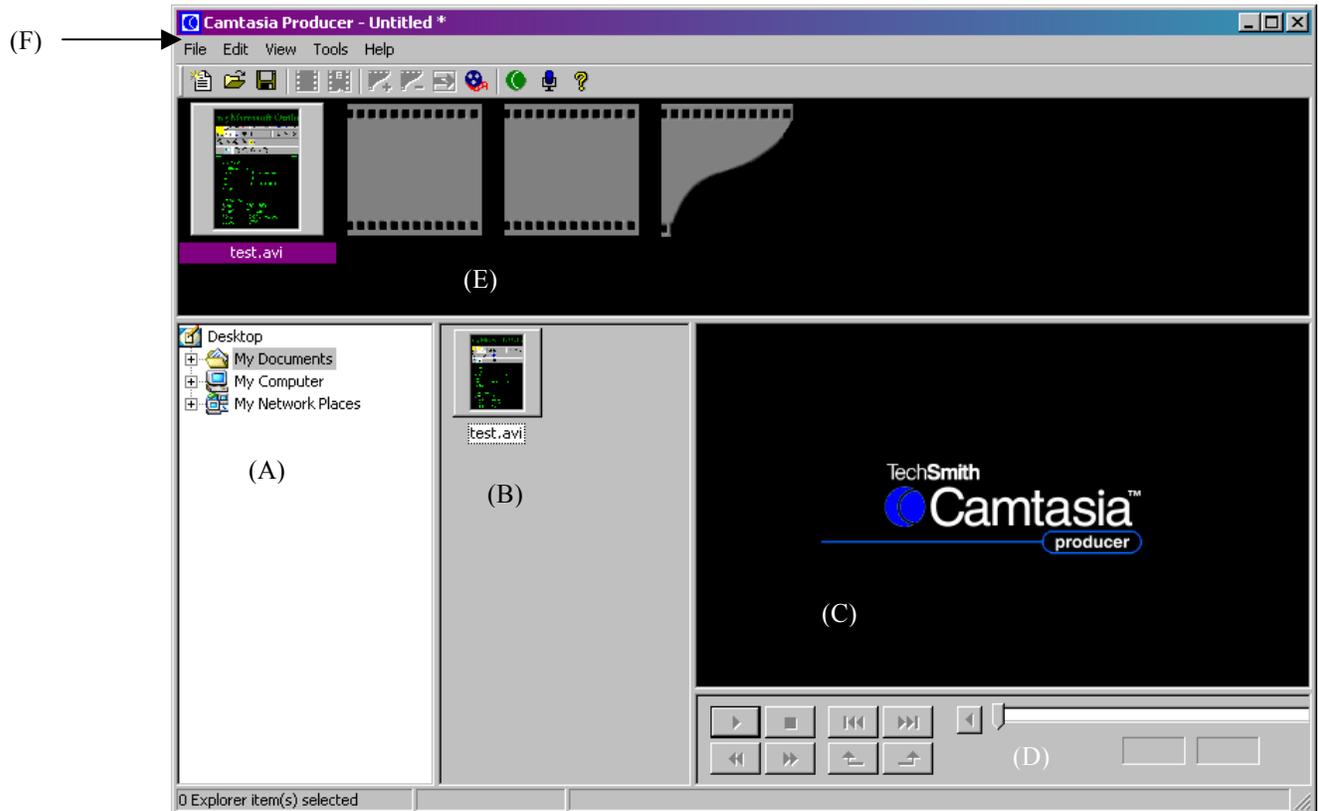
After installing Camtasia, and when the "Installation Complete" dialog box appears, note the DubIt installation prompt in the lower right corner. DubIt is included free of charge with Camtasia. If you want to install DubIt, you can do so right after installing Camtasia, or you can install from the CD-ROM later.

If you decide to install DubIt later, procedures to install it are the same as for Camtasia. If you are installing from CD-ROM, look for **<drive:>\DubIt\setup.exe** and double-click it. If you are installing from our web site, download the program first, then go to the temp directory in which you stored the download file and double-click **dubit.exe** to begin installation.

Make as many takes and clips as needed for your project. When you are done recording, you can use **Camtasia Producer** to trim them, add audio, and export to the movie file type you want (AVI, Microsoft Windows Media or RealNetworks RealMedia).

Using Camtasia Producer

Use **Camtasia Producer** to edit your desktop videos (AVI files). Producer uses a storyboard interface to assemble AVI video clips. In addition, you can incorporate transition effects between clips on the Producer storyboard or add a watermark to your entire production. Producer also has an Explorer-like file browser, a thumbnail viewer of available video clips and an editor window for previewing the clips and setting “trim points.”



1. Drag movie clips from the **File Explorer (A)** or **Thumbnail Viewer (B)** to the **Editor Preview (C)** and trim movie clips in the **Editor (D)**.
2. Drag movie clips to the **Storyboard (E)** from the Editor, or directly from the File Explorer. Reposition clips on the Storyboard and apply optional Transition Effects (**File > Transition Effect...**) (F).
3. **File > Produce Movie...** (F) creates a movie (AVI, Microsoft Windows Media or RealNetworks RealMedia) from the current Storyboard contents. Click Produce to continue.
4. **Important:** The project and Storyboard are not yet saved! Save the current Storyboard and all effects as a new project using **File > Save Project As...** (F).

Using DubIt

You can record audio either during video recording (using the audio record capabilities of Camtasia Recorder) or afterward using the **DubIt** audio editor tool. DubIt can add audio to the AVI file from the microphone or from existing audio (WAV) files.



1. Use **File > Open (A)** to open a movie or image file. DubIt can add audio to AVI, BMP, GIF and JPG files.
2. Add audio from a microphone using **Edit > Record Audio (B)**. Or, insert audio from a WAV file with **Edit > Insert Audio File (B)**.
3. Use the **Toolbar Controls (C)** to review your movie and see how it sounds. Add/modify/delete the audio anywhere in the movie.
4. Save your movie using **File > Save (A)** or **File > Save As (A)**. DubIt saves your movie as a standard AVI file.

The Basics of Creating Desktop Video

Camtasia includes all the tools you need to record and produce your videos. Camtasia Recorder is a desktop camcorder that captures screen activity and applies real-time effects. Camtasia Producer is a video editor for producing standard AVI files, Microsoft Windows Media, or RealNetworks RealMedia.

You can use Recorder to record program action to be used in many creative ways: training videos, multimedia projects, demonstrations of all types, and recording abnormal events for support and testing purposes. Camtasia videos can be viewed with the standard Windows Media Player, RealNetworks RealPlayer, or any standard AVI player.

When you make a video using Camtasia, you are actually saving a series of bitmap graphics, that, when shown rapidly in sequence, shows movement. The more frames per second (fps) you record, the smoother the motion. These captures are stored as AVI files. To learn more about computer-based motion video, see the following article on the World Wide Web:

AVI Overview, by John F. McGowan, Ph.D. at

<http://www.jmcgowan.com/avi.html>

Video files can be placed in most any Windows program, including all Microsoft Office applications. The resulting file will show the video viewer where you pasted the AVI file. The viewer will be stopped on the first frame of the captured video. The user can view, pause, stop, replay, and exit the video by clicking the controls on the viewer.

Note: Virtually all Windows systems are shipped with a video viewer. When an AVI file is activated, this is the viewer that will show it if you have not installed another.

File Size

AVI file size tends to be quite large for long, detailed videos. AVIs over one megabyte are not uncommon. You can limit the size by:

- Limiting the size of the application window being captured. Don't bother including extraneous information in your video. Set the size of the capture area using menus **Capture > Input > Region or Fixed Region...** In general, you should not produce movies that are larger than the smallest desktop size that your audience may be using to view your movies. Media players may scale a large video to fit on a small desktop (e.g. a 800x600 movie may be scaled down when viewed on a 640x480 desktop). This scaling can make text in your video unreadable.
- Limiting the speed at which video frames are captured. Instead of capturing at 15 frames per second, reduce to 8. The difference in motion should be unnoticeable.
- Limiting the length of the video capture sequence. Camtasia captures video sequences in real-time seconds and minutes. The shorter your sequence, the smaller the resulting AVI file will be.
- Camtasia Recorder uses the TSCC video codec and the AVI file format to record at the highest speed, with lossless video quality, and to provide you with an industry standard, vendor neutral, file format for your stock footage. Use Camtasia Producer to create smaller files using the streaming media file formats, like Microsoft Windows Media v7, for publishing and delivery.

Since file size and performance are related, refer also to Chapter 4, Video Performance for more details.

Viewing Camtasia Demos

The Camtasia installation CD-ROM contains feature descriptive sample videos that were created using Camtasia. They are located in the **<drive:>\Camtasia\Samples** directory on the Camtasia CD-ROM. Look for the files **CamtasiaBasics.AVI** and **ProducerBasics.AVI**. We recommend you copy them to your hard drive for viewing.

4. Video Performance

Configuring Camtasia Recorder

All video recorder preferences are set with the menus **Options > Preferences** and the **AVI** tab. Experiment with different settings to improve quality or performance of the video capture. For most captures, leaving the default selection under AVI Preferences (Auto Configure) will most likely achieve the best results.

Recorder Performance

Performance during recording is affected by many factors outside the control of the software. For example, CPU speed, hard drive performance, and graphic card capabilities are among the most important factors impacting Camtasia Recorder performance.

If you experience problems recording, such as screen action not keeping up with the program you are recording or the application seems “sluggish,” try adjusting some of these factors.

- Use the **TSCC video codec** during capture. The only exception is at 256 colors, for which you might try the MS-RLE codec which may be just slightly faster. By default, Camtasia Recorder has the **Auto Configure** option enabled in **Options > Preferences > AVI**. Auto Configure tries to determine automatically the highest frame rate that can be captured given the desktop color depth and movie dimensions that will use 75-95% of the CPU. First, try disabling Auto Configure and manually raise the capture frame rate. Try frame rates between 8 and 15 frames per second (fps).
- To get the best capture performance, disable Auto Configure as described above. Then, click the **[Configure]** button to configure the **TSCC codec**. Move the **Compression Control** slider all the way to the left (**Faster Compression**). This setting will hold whether you use Auto Configure or not. It tells the TSCC codec to compress as fast as possible rather than make as small an AVI file as possible.
- **Desktop color depth**. Lower color depths result in improved performance. Of course, some applications require at least 16-bit color. Note that some graphics cards perform better at 32-bit color than at 16-bit color (see the chart below). So, you may need to experiment capturing at various color depths on any particular system.
- Use the **Quick Capture** option to reduce the system load, obtain higher capture frame rates and improve the smoothness of mouse movements.

- **Size of the capture area.** The smaller the capture area, the better Recorder's performance will be.
- **CPU speed.** The faster the computer, the better Recorder's performance will be. This is the most important factor in capture performance when all of the other parameters are fixed.
- **Graphics card.** Some graphics cards and/or drivers have better 2D performance than others. For example, on a Pentium III 500MHz system capturing at 800x600, we measured the following capture frame rates with different AGP graphics cards at different desktop color settings:

Card	8-bit	16-bit	24-bit	32-bit
3dfx Voodoo 3	21 fps	10 fps	7 fps	6 fps
S3 Savage 4	17 fps	7 fps	na	4 fps
Diamond Viper V770 ⁵	20 fps	6 fps	na	22 fps
STB nVidia ZX 8MB ⁶	44 fps	30 fps	na	20 fps

- **Hard disk speed.** Always use the fastest local hard drive available for the **Temporary File Folder** set in **Options > Preferences > Program**.
- **Reduce the system load** during capture. Don't run any applications that you don't have to during capture.
- If you have tried every option and still have problems with capture performance, we suggest you contact technical support. See Chapter 5 for contact information.

Camtasia Producer Performance

You should not have any performance problems using Camtasia Producer with movies captured successfully on the same computer on which they were recorded. Since Producer builds the final output movie by "rendering" it frame-by-frame, a very complex movie with a large number of transitions may take longer to create than simpler movies. This should not be a "show stopper," however.

Distributing Your Videos

Distributing your video can be a simple task of just sending the AVI file to another user. Or it may involve creating the movie in a special "streaming media" format for distribution from specialized streaming web servers. The output choices are made usually in Camtasia Producer when you choose **File > Produce Movie...**

⁵ Uses the **nVidia TNT2** chipset.

⁶ The **Diamond Viper V770** and the **STB nVidia ZX 8MB** are the best performers we have found. The STB perform exceptionally well at 8 and 16-bit color. Note that STB is now owned by 3dfx and that the model of that card is now called the **3dfx Velocity 128**. Diamond has a successor to the Diamond Viper V770 called the **Diamond Viper V770 Ultra**.

You may also want to use the Pack and Show feature in Camtasia Producer to convert your movies to an EXE file that automatically installs the TSCC video codec if needed.

For more sophisticated publishing and delivery options, consider using a 3rd party multimedia authoring tool. Camtasia creates standard AVI files that can be used with most multimedia authoring and presentation tools.

TSCC—What is it?

TSCC stands for **TechSmith Capture Code**. It is a video encoder-decoder that takes advantage of the unique characteristics of desktop video and produces a superior quality movie at reasonable compression rates. It is the default method of encoding in Camtasia Recorder, which can easily be changed to any of the standard Windows codecs when recording. But we recommend TSCC as a high quality, lossless video codec that is especially well suited for desktop videos.

However, when using TSCC to encode a final production for distribution, you must also distribute the free codec to any users who will view the movie. There are no charges, royalties, or licensing requirements involved in distributing movies encoded with TSCC or with distributing the codec to others for viewing.

If you do not want to distribute your movie encoded with TSCC, we recommend you still use TSCC during capture with Camtasia Recorder. Also, select the uncompressed PCM audio format. Then, when the movie is produced in Camtasia Producer, select another codec and audio format for distribution (such as a standard Windows video codec, compressed audio, or a streaming file format). This approach trims the final file size while maintaining some of the quality of the original.

To make distribution of TSCC-encoded movies easier, we have created a codec installer and have included it on the Camtasia CD-ROM. It is also always available at our web site, www.techsmith.com. Look for the file named **TSCC.EXE**.

Copy **TSCC.EXE** onto the same media where your movie distribution resides and either have your installer run it at installation time or instruct the user to do so.

Camtasia Producer includes a Pack and Show option to convert a movie file into a single executable (.EXE) file that users can run to play movies encoded with TSCC on any system with a standard movie player. This option helps users distribute movies encoded with TSCC without having to worry if the user has the TSCC codec installed. The packaged EXE file automatically installs the TSCC video codec and then plays the movie. The self-extracting EXE file is compressed, providing additional compression of the movie file (e.g. for distributing movies with uncompressed high quality audio).

For TSCC encoded content delivered on the web, an activex control is available that can be embedded in a web page to automatically install the TSCC codec when a user lands on the page using Microsoft's Internet Explorer web browser. This very small control checks if the TSCC codec needs to be installed or updated and if so, downloads and installs the TSCC codec.

For streaming your videos on the web, you can use Camtasia Producer to produce standard streaming media files that do not require the TSCC video codec. For example, you can produce your video as a Windows Media Video (WMV) file using the Windows Media Screen video codec. Windows Media Player automatically downloads the Windows Media codecs if they are needed.

5. Support

Contacting TechSmith Technical Support

If at any time you experience problems with Camtasia we encourage you to contact TechSmith's Technical Support staff at 800.517.3001 (or 517-333-2100) or by e-mail to **support@techsmith.com**. Technical support is offered, free of charge to customers and evaluators of our software.

Using Help

Another alternative is to use the extensive online help system included with all Camtasia products. These help systems are located under the **Help** menu of the main screen for Camtasia Recorder, Producer, and DubIt. Select **Contents and Index** for the best place to start.

If you are looking for a subject, you can use the handy search tools within the help system to find the information you need. When you are on any help topic, click the **[Help Topics]** button. This reveals the three tabbed help contents:

1. On the **Contents** tab, click on books or topics to get more information about a subject.
2. Under the **Index** tab, you can type a word or two about what you seek and the topic finder will help you locate it. You can also scroll the list of all topics on the lower portion of the tab.
3. On the **Find** tab, type the single word you want to find and the topic finder will search all topics for occurrences of that word.

Product Upgrades

Check our web site at **<http://www.techsmith.com>** for product upgrade availability. You can usually obtain a full product upgrade by simply downloading the latest version from the Download section of our web site.

There are usually no charges for minor upgrades once you have purchased and registered your product. Major product upgrades will require you to make a new purchase and registration.

Most Frequently Asked Questions (FAQ)

For the most up to date FAQs, visit the TechSmith Technical Support Forums at: <http://www.techsmith.com/forums>

1. I sent my video to a friend and he said it would not play on his computer. What could be wrong?

If you encoded the movie using the TSCC codec and did not send it to him, that is likely the problem. You can either re-encode the movie using a standard Windows codec such as MS-RLE, or, simply send your friend a copy of TSCC.EXE so he can install it and view the movie. It's easy—just tell him to double-click on the filename to install the codec.

2. The application I am capturing has large windows. When I try to capture, the whole computer slows down. How can I capture these large windows in real time?

This is a symptom of asking your computer to do too much work. Try reducing the size of the capture area, the number of colors you screen is set for, the frame rate at which you are recording, or the compression settings for the TSCC codec. Some combination of these remedies should allow you to capture a reasonably-sized window.

3. When I record a video playing in Media Player or Real, the recording is blank.

When Camtasia or SnagIt grabs a solid block of color instead of an image which looks fine on the screen, the problem is usually due to graphics hardware acceleration being used to display the image. The newer media players from Microsoft and RealNetworks are good about trying to use any graphics hardware acceleration that is available on the system. For example, some systems have graphics hardware which can perform a "hardware overlay" of video on the screen which bypasses the normal Windows display memory that SnagIt captures. Most video capture programs used to capture video from a video camera use "hardware overlay" by default for their video preview. Note that this kind of problem effects all screen capture programs, and even the image put in the clipboard by the PrintScreen key.

The solution:

It is often possible to disable the graphics hardware acceleration on a system. This forces the plain old Window display methods to be used and allows SnagIt to capture what is displayed on the screen. There are two ways to disable graphics hardware acceleration:

a) Disable graphics hardware acceleration globally for all applications using the Control Panel "System" applet. Go to the "Performance" tab and click the "Graphics" button under "Advanced settings...". Set the "Hardware acceleration" slider to None and hit OK. You may need to restart Windows to have this change apply.

b) Disable graphics hardware acceleration for a particular application. For example, in RealPlayer G2 select Options/Preferences from the RealPlayer menu. Go to the "Performance" tab and disable (uncheck) the "Use optimized video

display" setting. You may need to stop and restart any movie being played to have the change take effect.

To disable acceleration for Media Player only select View>Options>Playback.

Disabling the graphics hardware acceleration globally for all applications is probably the easiest way to "fix" the problem. Of course, with hardware acceleration disabled, video playback may not be as smooth as it could be with acceleration.

4. How do I record audio generated by a program?

Camtasia only accepts audio input from the microphone (wave in device) input. If you need to record audio generated by applications the workarounds are:

- a) Get a Sound Blaster Live video card. It places an input into the Recording section of the Windows Volume Control called "What You Hear" that maps the audio to the wave in device. This allows direct recording of audio simply by enabling audio recording in SnagIt or Camtasia. Some video cards can be set with the input as Mixer which allows direct recording of audio. Check your video card for similar settings.
- b) Place a microphone in front of the speakers.
- c) Place a jumper wire between Line Out and Mic In on the sound card. If you do this, you may wish to disable in the Windows Volume Control>Options>Advanced Controls>Mic Gain or the audio may sound slightly over amped.

5. My video is blurry.

If you use the default setup of Camtasia Recorder and produce videos with the TSCC codec, the playback should be lossless, perfect quality and look exactly like the screen that you recorded.

The problem is probably that the video is not being played back at 100% the original size at which it was recorded. Normally in Media Player all that was needed was to select View>Options>Playback and set Zoom=100%.

Media Player 7, in it's default "skins" mode has problems playing files at 100% their original size. Most of the time it scales them to a smaller size resulting image quality degradation. Many times selecting View>Zoom = 100% has no effect.

The fix is to use Media Player 7 in 6.4 mode, or to reinstall Media Player 6.4.

To use Media Player 7 in v6.4 mode:

- a) Locate and run the file MPLAYER2.EXE that is located in Program Files\Windows Media Player. This will run MP7 in v6.4 mode.

b) When v6.4 is running select View>Options>Formats and check the Available Formats so that Media Player will play Video Files and all of the Windows Media files. This will set the Windows Shell Associations to use Media Player 6.4 when you double click on a video in Windows Explorer.

If you wish to use v6.4, you may download it from:
<http://www.microsoft.com/windows/windowsmedia/en/download/default.asp>