

An Introduction to Screencasting

by Beth Kanter, March 2007

Screencasts – movies that capture tasks performed on a computer – can be powerful communication and training tools, and you don't need to be a Hollywood filmmaker to create them. Beth Kanter walks through why screencasts are useful, how to create them, and some of the software tools that help in the process.

If you provide end-user technical support, people likely ask you about the same software tasks over and over again. What's more, you've probably discovered that not everyone responds well to text or verbal instructions. What if you could send those people a brief video showing the procedure, accompanied by your voice walking through the important concepts?

Or what if you need to provide some quick training on a new software package to a bunch of folks around the country, or you want to demonstrate a new concept – perhaps how to collaborate using social bookmarking software? A video that combines demos of some of the key tasks with an overview of the concepts around the software could provide a compelling introduction.

These kinds of videos, called screencasts, can be powerful tools to demonstrate technical tasks, or to illustrate technical concepts that are hard to explain in words. The video and audio components can make a topic more engaging than written instructions or static images, while also appealing to different learning styles.

You don't have to be a Hollywood filmmaker – or have a Hollywood style budget – to create a decent screencast. There's a number of different software packages that make it easy to capture what is taking place on the screen. You simply click a record button and show the exact mouse clicks needed to do a task. Software also allows you to add audio narration to a powerpoint presentation, integrate real-life video, photos, and music. Once completed, screencasts can be easily distributed via blog posts, RSS feeds, tags, and social media video hosts like OurMedia or blip.tv. These channels allow you to share training screencasts with a distributed audience, or put your ideas out onto the social web to open the door to collaboration.

Although having some video editing skills and knowing how to clearly communicate your ideas will vastly

improve the quality of your work, almost anyone can get started fairly quickly, particularly if you intend to use the screencasts for in-house training, software beta testing, or rapid knowledge capture.

So how might screencasts be useful to your organization? How do you go about creating one? And what software tools are useful in the process? This article provides an introduction to the concepts and the processes you need to know.

What is a Screencast?

A screencast is a movie that captures the display from a computer screen along with someone talking about what's being shown. This might take the form of a formal narrated PowerPoint presentation, a software demo, or an informal walkthrough of a particular concept.

Some of the best screencasts are folksy, intimate experiences that feel as if you were sitting shoulder-to-shoulder with a friend. As screencasts often contain impromptu discoveries by the narrator, or even small mistakes, they can be more approachable – and thus more effective – than glitzy packaged instructional videos. A good screencast projects an image of transparency, trust, and authenticity.

Screencasting Uses and Examples

There's no one right way to use a screencast. Organizations are using them for a number of compelling purposes.

Software Tips, Tricks, and Tutorials

Screencasts can very effectively demonstrate how to use a software application or website. Consider recording “tips and tricks” overviews of key applications, and then putting them on the web for

"just in time" access by those who need them. Comprehensive tutorials can be very resource intensive to deliver as a single screencast, but you can always create a series of brief screencasts on a single theme and post them together for those who want to spend more time with the topic. If your audience consists of beginners, it may be necessary to include detailed step-by-step instructional materials or additional resources. Some good examples include:

- [FreeVlog Video Blogging Tutorials](#)
- [Tips for Skype in the Classroom](#)
- [Getting the Most out of YouTube](#)

Web or Project Orientations and Software Demonstrations

A screencast can be an engaging way to introduce visitors to your organization's web site or project. Many software vendors are using screencasts as a multi-media introduction to software features and functions, to allow potential buyers to evaluate whether or not they want to test the software further. Some good examples include:

- [Overview of the e-Democracy website](#)
- [Ken Thompson's Swarm Teams Demo](#)

PowerPoint Presentations as Multi-Media

There are a number of ways that you can share your powerpoint presentations with colleagues via the Web. However, screencasting can be a simple way to add audio to your powerpoint presentations (for more information on how to do this, see MasterView's article [How To Add Recorded Narration To Your PowerPoints](#). Some good examples include:

- [Knowing Knowledge, from the Online Educa conference](#)
- [An Identity 2.0 screencast captured live at a conference](#)

Concept Screencast

Screencasts can be the perfect medium to explain difficult technical concepts to non-technical people. While the end product may look simple, it takes a fair amount of time to plan and storyboard your topic so you can explain it a clear but interesting way. Some good examples include:

- [The Machine Is Us/ing Us](#)
- [Introduction to Tagging](#)

Knowledge Capture

Screencasts can be an excellent addition to your organization's knowledge capture process. For instance,

consider documenting procedures that your users frequently ask about, how a server is structured, or the knowledge of an expert about a particular application. While these screencasts may only have an internal audience, and thus may have somewhat lower production values, this kind of "rich media documentation" can help preserve organizational memory. Think through the time it will take to watch the video if the knowledge is needed, however, and prioritize that against the time it would take to write up the knowledge or document it in a different way. Some good examples include:

- [Audio Editing by Jon Udell](#)
- [Alive in Bagdad Project Work Flow](#)

Web Site or Software Interface Beta Testing

Some open source software advocates are championing the idea of remote usability testing. Screencasting tools can provide a method for remote beta testers to participate by simply hitting the record button and narrating as they test the software. An example:

- [My experiment in beta test screencasting for the Social Source Commons](#)

The Screencast Creation Process

Content, Script, and Storyboard

Begin your screencast with an understanding of your audience. What do they already know about the topic? What are you trying to teach them? Decide what you should cover, what you don't have to say, and how specific you need to be. Keep in mind some basic best practices of educational multimedia - people learn better when information is presented:

- In small chunks
- Using clear outlines and headings
- Using a conversational style rather than a formal one

Even though you are making a movie of your computer screen, remember that you're still telling a story. Screencasts that focus solely on step-by-step procedures or PowerPoint bullet points can be deadly boring. Take a look at Andy Goodman's "[When Bad Presentations Happen To Good People](#)." While he is talking about PowerPoint presentations in particular, most of his storytelling advice can be applied to screencasting.

As you think through your topic, it can be useful to create storyboards - rough sketches of what you will

present and in what order. Storyboarding helps you organize the source material and ensures that you cover what you need to cover. For an example of storyboards in action, see TechSmith's article [Why storyboard your screencasts?](#)

Some people find that writing a script, or at least a bullet point outline, helps them focus the video and organize what they'll need. If you're able to narrate your screencast in a clear and concise way based only on bullet points, then you may not need to write out exactly what you plan to say. Others find that having a word-for-word script keeps them on track. It also makes synchronizing the video with the narration much easier down the road.

Having a script and storyboard may be important if you are preparing a screencast for a third party or you'll need others to sign off on the content.

Pre-Production

Your screencast will likely include a number of different source materials such as video screen captures, real life video, photos, music, titles, and the recorded narrative. Think carefully about what you need, and be organized: a five minute screencast can add up to a lot of individual pieces.

One simple organization method is to think like a filmmaker and plot out your screencast in acts and scenes. For each scene, note what narrative, images, video, or titles will be needed. It also makes a lot of sense to organize your digital materials on your computer in folders and file names that correspond with each act/scene. Finally, if you are using creative commons licensed materials, make sure you note the correct attribution so you can add this information to the credits. Based on my storyboard, I usually create a production checklist organized by scene.

Shooting Your Screencast

At this point, you are ready to start filming. I generally use a two-step process. First, with my script in hand, I capture only the video sections while practicing my narration. Next, I record the voice narration while carefully synching it with the video. It takes a little practice, but I made fewer mistakes when I wasn't trying to capture and narrate at the same time. For more informal screencasts, such as beta testing for example, I just hit the record button and do both the video and audio simultaneously, narrating off bullet points. Note, however, that editing is more difficult if you record both video and audio at once. If you find

that the Internet applications you are recording are taking a lot of time to load, be sure not narrate over those sections so you can easily cut out the wait time in the editing process.

While it's possible to capture your entire screen, you shouldn't. Even with the best compression, extra screen real estate translates to wasted space and costly file size. You may want not need the title bar, toolbars, status bar or scroll bars in your browser, for example. In general, anything that doesn't help to tell the story should be cut. I generally capture a window at 800x600 with the same playback size or 640x480 depending on my file size and time limitations (larger files take longer to render).

Screencasts are literal copies of your screen activity, so make sure you are capturing the action "on screen." You may also need to use zoom or pan functions to maintain focus or so menu details do not get lost. Take care to only move your mouse around when you're doing it to make a point.

The Tools

In order to make a screencast, you will need video capture software, editing software, and a microphone. While there are a number of free and open source video capture and editing programs available for both PC and MAC, using them requires a fair amount of technical skill and comfort with video editing interfaces. Also, most of the less expensive options require you to use two different programs, one for capture and the other editing. Therefore, using these less expensive tools means that you will need to learn something about file formats, size, and aspect ratio to properly export and import from one program into the other with acceptable results. If you're new to multi-media creation, you may want to consider one of the commercial screencasting packages that combines capture and editing into one piece of software simply for the ease of use, documentation, and technical support options. (It will, however, cost you more money.)

Since good sound is an extremely important production value, it may be worth investing in a good USB microphone (about \$50-70), although you can certainly begin with using an inexpensive mic and upgrade later. I started off using [Camstudio](#) (a free screen capture tool), the free video editing software that came with my PC ([MovieMaker](#)), and a \$10 microphone. Later, as my skills improved, I invested in [Camtasia](#) (approximately \$300), an integrated capture/ editing suite that many

consider to be the gold standard for screencasting. I also bought a decent USB microphone - the [Samson Condenser Mic](#). Other PC users have told me they use [SnagIt](#) (\$40) or [Wink](#) (free) to capture screen and audio, and entry level video editing programs like [Adobe Premiere Elements](#) (\$99) or [Sony Vegas](#) (about \$100). People who work on the Mac platform use [Snapz](#) (\$69) for screen capture and pull it into [iMovie](#) (free) or [QuickTime Pro](#) (\$30). More serious screencasters might use [Final Cut Pro](#) (\$1299), a professional level video editing software package.

See the Resources at the end of this article for some links to some detailed software comparisons.

Editing

Your editing process will differ depending on your choice of tools. Since I use Camtasia, a software package that allows me to both capture and edit, I tend to do a rough edit for content and flow as I shoot the movie. In this way, I have a draft complete when I'm finished "shooting". If you are using separate screen capture and editing programs, you'll need to edit your screencapture segments, pull them into the video editing package, and then add narration, titles, zooms, and other effects.

Next, I watch my screencast and notes on places that require a close up, captions, titles, transitions, or where the audio isn't quite synchronized with the video. I also listen carefully for places in the audio where the voice over is less than polished (for instance "uhs" and "hms"), and do what I can to clean it up. This part of the editing process can be tedious, but polishing your work can improve the production values greatly. If you're a perfectionist, try not to get obsessed at this stage, as it can be very time consuming. I'm learning to let certain things go.

Final Production

If you want to post your screencast to the web, you'll need to compress it - to translate the video format to one that takes up less file space. This is a complex but important topic. A more advanced software tool can help you through this topic - for instance Camtasia has several production wizards that walk you through the trade-offs of video and audio quality versus file size and format. It asks you a series of questions about your source material, file size requirements, and video/audio quality to help you pick the right file format and screen size. In other words, you don't need to be an expert in compression formulas.

Otherwise, you'll need to understand more of the intricacies. The book "[The Secrets of Video Blogging](#)" has a solid chapter on file formats and compression settings for both PC and Mac. Alternatively, FreeVlog has a useful [screencast that walks through several "recipes" for compression](#).

When you are ready to output your video to a compressed and final format - called "producing" or "rendering" - keep in mind that longer screencasts can take awhile to render. Some of my screencasts have taken an hour to render, preventing me from doing other work on my computer.

Hosting

There are many options for hosting your screencasts, including free services like [blip.tv](#), [YouTube](#), [Revver](#), [Splashcast Media](#), and [Google Video](#), and fee-based video hosting services such as [screencast.com](#). Choosing the right host or combination of hosts depends on the specs of your screencasts, as well as other key considerations:

- **Screencast file size.** How big a file can you host? Many of the free services are limited 100MB file size.
- **Video file format.** Can you host the video in the format you'd like to use? For example, some services don't accept flash movie files. Can you host several different file formats and allow the user to choose?
- **Rights ownership.** Can you main ownership of your video, or release it under Creative Commons? What does the hosting company have the right to do with it?
- **Upload process.** Is uploading fast and easy? Can you easily add and update descriptive text about the screencast?
- **Playback quality.** How big is the screen for the viewer to watch the screencast? How is the audio and video quality?
- **Distribution.** What options do you have to allow download and sharing? Are there options to make money of your screencast?

Distribution

Your final task is distribution of your screencast. Will you be sharing your screencasts on a blog or web site or via video host channel? Will they be distributed internally and or offline on DVD? After all your hard work, ensure you plan out a strategy so that your audience can take advantage of what you've created.

Putting It into Action

If you are new to using multi-media tools like video and audio software, you'll need to expect a learning curve when you start screencasting, but it isn't an insurmountable task to master the software and techniques. Start by creating a screencast about something you're frequently asked or to document a piece of internal knowledge. Don't be afraid to think of screencasting as if it were a home video – it's easy enough to capture your screen that you can just do it, and use it if it's useful. If you're creating something to use internally, it may not need to look great. It can be a bit more difficult to create good production values – solid audio, framing, pacing, and more. If your audience and the context requires better production values, you'll need to spend more time planning the content, honing your skills, and refining the screencast. You'll need to work in a different mode – to channel a

Hollywood filmmaker and create something that not only shows a process but tells a story.

For many, refining their multi-media skills will be worth the effort. If you do, the next time that someone asks you that same question for the nineteenth time, or you're struggling to communicate a complex idea, you can let a screencast do the talking for you.

For More Information

For many more resources about screencasting, see the online version of this article at <http://www.idealware.org/articles/screencasting.php>, or my complete collection of screencasts and instructional media resources at <http://bethkanter.wikispaces.com/screencastsvideo>.

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