Michael Hanley Consulting

Capture that Elearning Demo

A Review of Adobe Captivate 3 & TechSmith Camtasia 5

Created by: Michael Hanley
Date: 9th February 2009
E-mail: info@michaelhanley.ie
Website: http://michaelhanley.ie

Michael Hanley Consulting provides E-Learning, Digital Media & Online Communication Consultancy and Solutions to Corporate and Educational Organisations.

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Introduction

Getting right back to basics here, but what a good way to start 2009! So, if you're new to e-learning courseware development, read on…

Ever wondered how to capture and produce e-learning demonstrations for delivery online?

I generally use two pieces of software to capture high-quality, post-produced demos. In this paper, I am going to discuss TechSmith Camtasia Studio 5 and Adobe Captivate 3.

Camtasia Studio

Camtasia Studio is a screen video capture program for Microsoft Windows, published by TechSmith. It is a screen-recording application that allows users to record almost anything on a computer screen, including application demonstrations and PowerPoint presentations. Users are able to use their own computers to demonstrate some aspect of motion-based content.
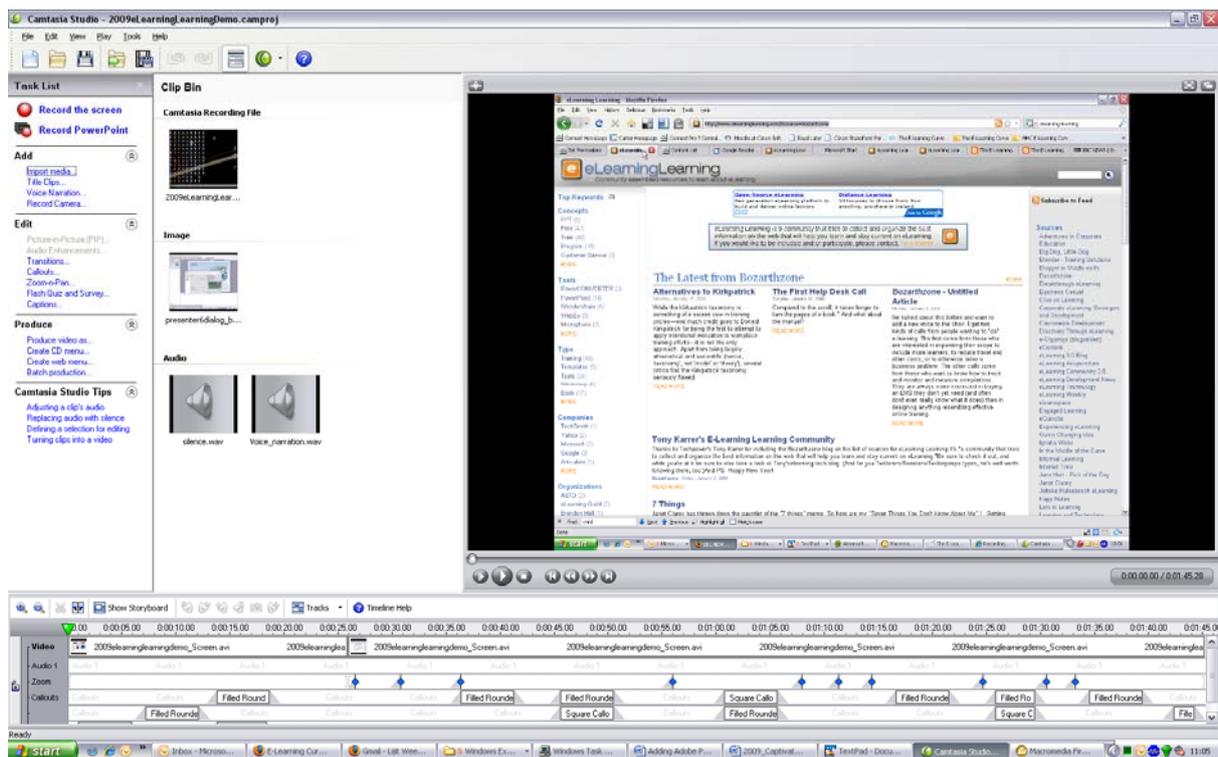

Figure 1 Camtasia User Interface

The presenter defines the area of the screen or the window to be captured before recording begins; it is also possible to capture the entire screen area.

Recording

Once Camtasia's recording mode is activated, the presenter carries out all steps of the demonstration, in sequence. It is possible to move between applications without interrupting the recording process. The presenter can pause or stop recording at any time - at which point the software renders the input that has been captured - as well as apply user-defined settings, such as when and how to display the cursor.

Post-production

Once the presentation has been captured, the presenter is able to revise it by integrating multiple recordings, if required (and this is typically the case on longer-form demos and course learning objects). In addition, the presenter can dub in a voice-over narration, sound effects, as well as music onto the presentation. Camtasia also allows audio recording while screen-capturing is in progress, so the presenter can narrate the demonstration as it is carried out. Most presenters, however, prefer to wait until they have finished the screen capture, and then record the narration from a script as the application is playing back the recorded capture.

Deployment

The application allows files to be stored in its own proprietary CAMREC format, which is only readable by Camtasia itself; this format allows for quite small file sizes, even for longer presentations. Much more useful is that Camtasia also allows the generated video stream to be exported to common video formats which can be read by most computers, even if the Camtasia software is not installed, such as Flash FLV and SWF, Windows WMV and MPEG-4. MP3 audio and podcast files may also be generated.

Uses

Once exported, content is easily distributed to a wide audience; highly compressed files, such as files encoded in the FLV format are especially suitable for distribution online via platforms like Adobe Connect.

Instructional Uses

Camtasia is popular among instructors *and* learners because presentations are easy to produce and distribute, saving instructors the time to repeat presentations many times, especially in courses that teach a certain application or computing environment. Many learners appreciate the simplicity with which Camtasia-produced presentations can be viewed, especially presentations that are embedded into a Web page and displayed in a client browser window.

Criticisms

One of Camtasia's primary shortcomings is its long rendering times and excessive consumption of system resources during production. Rendered file generation times can be improved by using newer hardware, such as a dual processor system, as well as an increased amount of RAM.

Adobe Captivate

Adobe Captivate is an e-learning tool (for Microsoft Windows) which can be used to author software demonstrations, software simulations, branched scenarios, and quizzes for distribution online or via CD-ROM.

Recording

Even before the term 'Rapid E-Learning' was coined (and Captivate was RoboDemo), this app was designed to be an e-learning authoring tool. As such, once opened, the author is presented with three recording modes (Software Simulation, Scenario Simulation, Other), depending on the activity you want to undertake. To capture content, the author carries out each step in the demonstration, in sequence. As with Camtasia, it's possible to cycle between applications without interrupting the recording process. The author can pause or stop recording (at which point the software renders the media that has been captured) at any point. When the recording (or a section of a larger recording) is complete, Captivate opens in editing mode.

Post-production

Once the presentation has been captured, the content is displayed as a number of discrete slides, representing each interaction of the recording. A timeline is available to integrate audio, onscreen text, and other enhancements. Similar to Camtasia, the author can record audio while screen-capturing is in progress. In edit mode, the author can import, record and edit a voice-over narration and other audio elements into the presentation.

Deployment

Captivate saves files in a proprietary .CP format, which is only readable by the application. Content is generated as ShockWave Flash (SWF), which can be played on most computers via a browser with the (nearly) ubiquitous Flash Player plug-in.

Uses

Once exported, content is easily distributed to a wide audience; as well as online delivery, content can be distributed via CD-ROM or DVD, by e-mail, and on Adobe Connect. Learners can easily access Captivate content through learning management systems (LMSs) and content

management systems (CMSs). Captivate is both AICC and SCORM conformant, facilitating learner usage tracking, as well as through scored quizzes and other interactions.

Instructional Uses

Captivate enables learning professionals to create new content and transform existing learning collateral in a (relatively) easy-to-use "one-stop" media creating environment. Its unified API means that very little programming experience is needed to generate attractive, immersive e-learning content.

Criticisms

As well as the positives, Captivate has some deficiencies; integrating, editing audio can be tricky, as can estimating slide duration; it's a bit of a memory hog on long presentations, or content containing a range of media assets; it can take a LONG time to generate content. In terms of rendered files, it's reliance on the SWF format, rather than, say Flash Video FLV) can make download times quite long when compared to its competitors. Finally, in an increasingly mobile world, devices like the iPhone cannot be used for playback.

Analysis

Writing this review proved to be a much more difficult (and time-consuming) task that I had anticipated it would be; in fact, I can say that I experience a mild [cognitive dissonance](#) whenever I'm asked the question "which do you prefer (or recommend): Camtasia or Captivate?"

The answer is I don't know. Or more accurately, I *still* don't know. More on this later. Like most people (in any industry) I tend to have a single 'weapon of choice' for each task I undertake. Last weekend I spent some time doing some DIY around the house for example, and despite owning

many screwdrivers, I always return to my trusty old Stanley DynaGrip 10, pretty much regardless of the gluing and screwing job I'm doing. Similarly when I post-produce video I use one editor – Vegas Video, when I edit audio the files are authored in SoundForge, and I use DreamWeaver to do 95% of my HTML and website-related production. But when it comes to authoring demos? Well… there I have a problem. Inevitably I run mentally run through the dialog that I am about to share with you, dear reader.

Adobe Captivate and TechSmith Camtasia Studio are similar e-learning content development tools with uniquely different strong points. If you're creating a software demo, or a PowerPoint presentation to deliver online, Camtasia is a better application; conversely, if you're making interactive web-based training, or a complex software demonstration, Captivate is superior is definitely the tool for the task.

Even where their functionality converges, their operating procedures and user interface are so different that each will probably appeal to different users. If (like me) your background is in media production, you'll find Camtasia easy to learn and use, and Captivate frustrating. On the other hand, if you're used to authoring content in PowerPoint, you'll find Camtasia a strange, and Captivate more intuitive and fit-for-purpose.
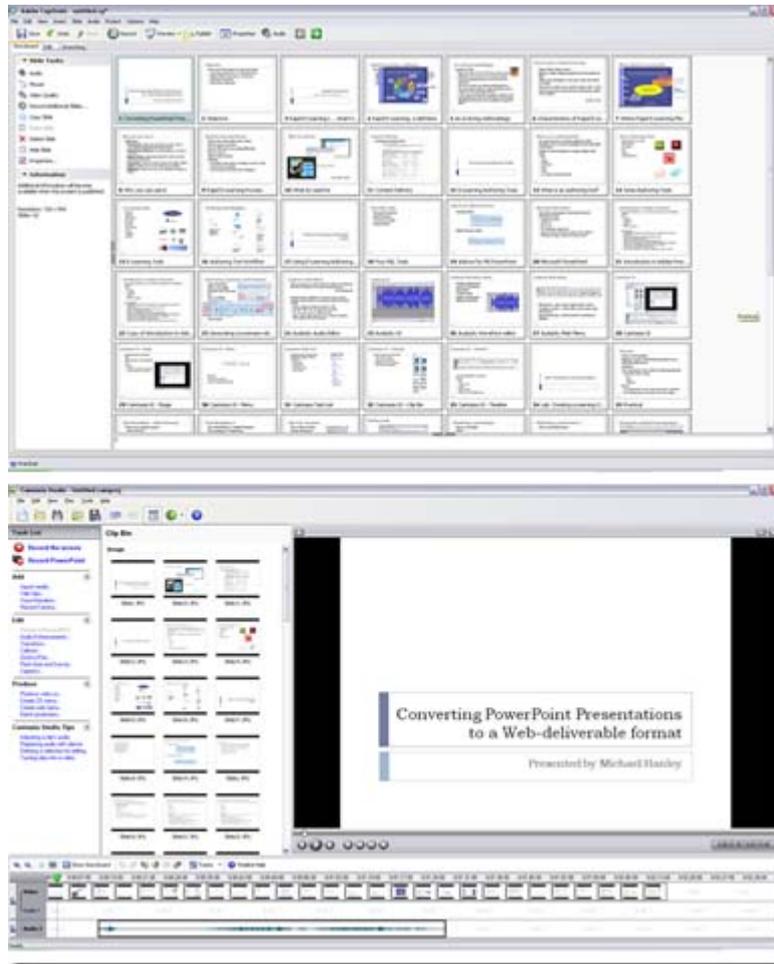

Figure 2 Captivate and Camtasia UI

Beyond these, however, are certain functions at which one product excels and the other either doesn't perform or performs quite poorly. For example, Camtasia excels at capturing streaming video content, which Captivate cannot do. If you need to 'pan and scan' a close-up of a screen element of the content that you've captured, Camtasia is your only choice. However, the reverse pertains if you're creating a quiz - Captivate offers a much richer toolset. Similarly Captivate's ability to generate Word or PDF versions of files for hardcopy distribution is a fantastic timesaver.

Indeed, the more you use both tools, the more you begin to realize that if you're authoring a range of e-learning, demonstration, and presentation projects, you probably really need both .

Using Camtasia

Like most screen-capture utilities, Camtasia captures a video of the screen as you interact with it, with added audio if you enable narration, as well as Picture-in-Picture (PIP) video if you add a webcam. The resultant CAMREC output file is a recording of all of the audio, video and interaction elements. In editing mode, Camtasia enables the addition of multiple tracks for captions, breakout boxes, callouts, PIP, quizzes, and so on.

Using Captivate

Captivate works differently. Rather than capturing one multiplexed file, Captivate captures the user's interactions as a series of screens, each containing one mouse click and movement. Very much like its progenitor Flash, Captivate stores each object of each captured screen as a separate element. As with Camtasia, you may add additional content enhancements – US Section 508-compliant closed captioning, callouts, quizzes, etc in post-production.

Audio

Both applications enable the author to either record audio narration in real time during capture time, or import MP3 or WAV audio in post-production. In my experience, Captivate audio recorded in real time loses synchronization over the duration of the recording: this becomes especially noticeable in 20-minute-plus recordings and can be *very* frustrating to remediate. However you can add post-content captured audio slide by slide (tedious), or by importing a completed audio file. A very neat feature of Captivate is that it recognizes audio markers, so if you include these in your WAV or MP3 file, it will synchronize with the slides in the presentation. I have also noticed that the audio generated by Captivate can be pretty ropey (even though it's MP3 format) – in fact, at some of the lower sample- and bit rates, it reminds me of the horrible .VOX format I had to use in my Authorware days, back in the last century.

In my view, Camtasia Studio provides a much more easy-to-use and intuitive audio recording and editing experience. The fact that you can see all the audio on a timeline layer means that you can see how the audio fits in context with the presentation's 'big picture.' The ability to split audio and move it around the timeline is an added bonus. Similarly, I feel that the audio enhancement features – normalization, noise reduction (NR) and so on – are easier to preview and use in Camtasia. In terms of outputs, there no end to your choice of formats – MP3, WAV, and WMA. The facility to render podcast-formatted audio is a very cool feature that Captivate just can't compete with.

Captivate Usability

Captivate offers three customizable capture presets - demonstrations, assessment simulations, and training simulations. If you choose an assessment simulation, Captivate won't capture mouse movements that highlight boxes, or text captions that would tell the learner how to proceed in

the assessment. In demonstration mode, Captivate doesn't include Click boxes, since it assumes that the audience is passively viewing the content.

As mentioned last time, Captivate uses an object-orientated paradigm to develop content. As such, events and interactions are captured as a series of screens. In edit mode, the content author can flexibly create new screens, import content (in a number of formats including AVI, PPT, and FLV), change the sequence of events, and delete unused content. As you can see from Figure 3, the edit tab look-and-feel is a combination of the Macromedia / Adobe Unified User Interface and Microsoft PowerPoint: this indicates to me that Adobe are targeting users familiar with developing content in the latter program as their core market for Captivate.
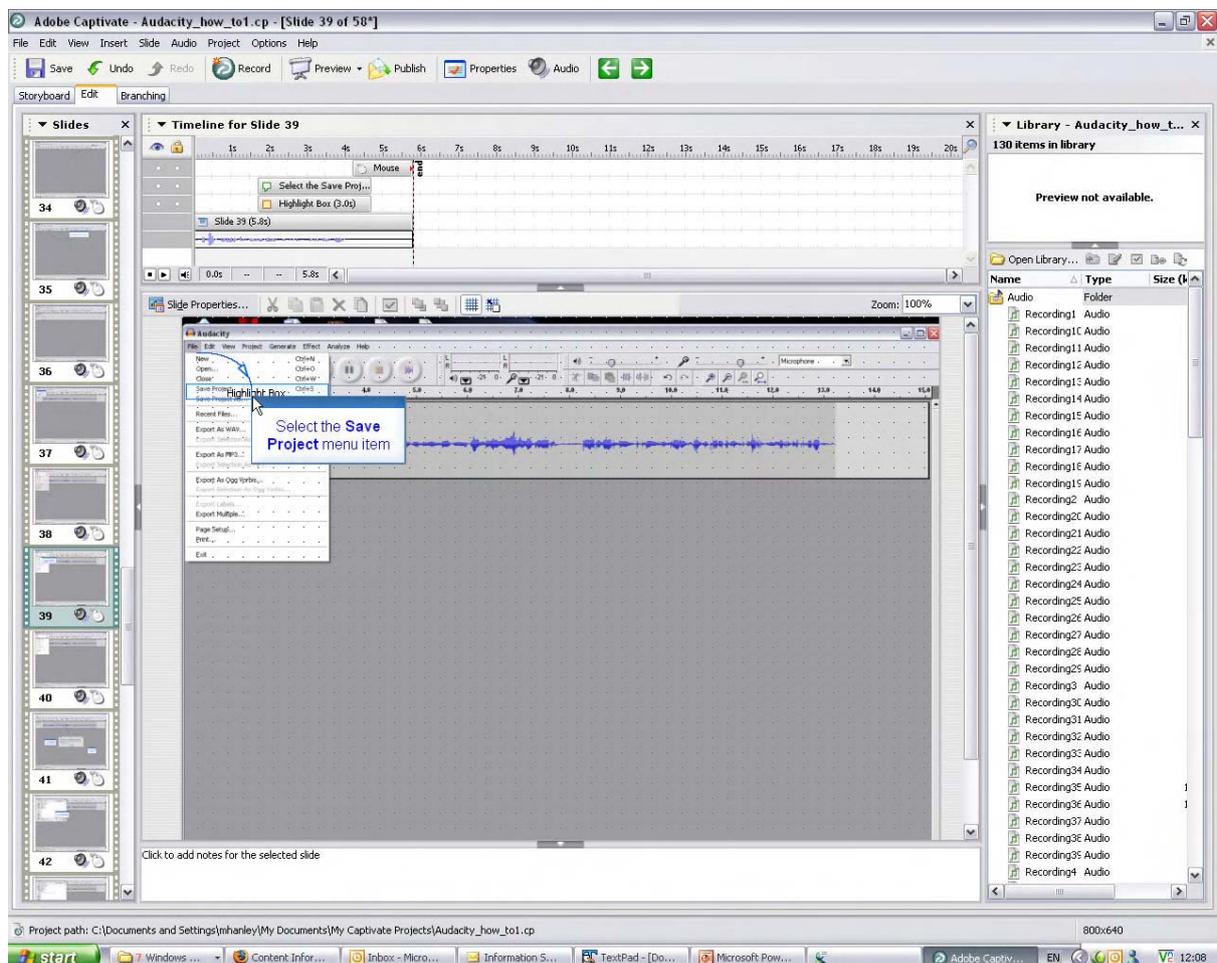

Figure 3 Detailed view of the Captivate UI

In this context, the UI works very well indeed; you *can* actually create a PowerPoint presentation in its native format, import it to Captivate, enhance it with motion-based media, animations, quizzes, and audio narration, and generate a learning object with ease. The inclusion of a timeline at the center-top of the UI is reminiscent of Flash and Director, so users familiar with these authoring tools can transition to Captivate-based content creation. The timeline also contains the vector-based mouse layer, which enables the modification of the mouse motion track in a demo or slide,

Compared to Camtasia, Captivate captures a broader range of text and interactive elements. The author can also add Text Entry boxes, clickable buttons, animations and text animations. Once an element is added to the timeline, it can be lengthened, reduced, and repositioned, which allows for a high level of precision - count on spending *plenty* of time tweaking the automatically captured elements to get the timing right.

Camtasia's Usability

If you've ever used Windows Movie Maker, you will be familiar with the Camtasia Studio UI. The interface is based on the video editing suite paradigm and includes all the common features of this editing environment - a preview window, a timeline where edits are made, a clip bin, and effects (cross fade, contrast/brightness etc) controls. Since Camtasia captures all mouse and screen events, it's perfect for developing process flows, hot to's and application demonstrations. Camtasia does not automatically generate onscreen text media like callouts, but they can be added manually in post-production. As with Captivate, TechSmith's program allows for very precise location of callouts and highlights. Similarly Flash Hot Spots—callouts with additional Flash properties— can be included - though you have to render the entire project to view their operation, which is a nuisance (Captivate facilitates a single frame, five frame, or entire movie preview which is great for testing interactive functionality). It is possible to add quizzes in Camtasia, but the results are not scored as they are in Captivate.

Conclusions

I still don't know which application I prefer. Used together as part of your e-learning content development toolkit, the applications will provide you with the ability to cover most (if not all) e-learning development eventualities. Because of my own professional background in digital media development, I feel more at home using Camtasia, but that does not mean that it's better at what it does. In terms of Camtasia's advantages I could highlight the better digital media manipulation, sophisticated features like zoom-and-pan, and wider range of output formats that Captivate just can't match. On the other hand, Captivate is much more capable and easier to use when creating assessments and simulations, especially with its ability to preview Click Boxes and other user input in Preview mode.

As I said when I began this review, each program has uniquely excellent functionality. I would assert that (for the moment) both tools are essential. Once you become familiar with their strengths, weaknesses, and quirks, it is hard to imagine working without either one.

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Find Out More:

[Adobe Captivate Homepage](#)

[TechSmith Camtasia Studio Homepage](#)