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# THE eLEARNING DEVELOPERS' JOURNAL™

Strategies and Techniques for Designers, Developers, and Managers of eLearning

THIS WEEK — DEVELOPMENT TECHNIQUES

## Building e-Learning with Macromedia Flash MX 2004

BY THOMAS TOTH

People learn by doing. Since 1896, when John Dewey introduced this concept, it has been recognized as a core principle of effective training. Nevertheless, Dewey's principle is not evident in applications being passed off as e-Learning in some organizations. All too often learners are subjected to Microsoft PowerPoint presentations or to Word documents displayed on a computer screen in ways that don't allow learners to do anything except click the "Next" button — again and again and again.

This approach is boring. We know that learners will not endure this type of training program, and research has shown time and again that learners will abandon it after just a few screens of text. e-Learning must engage and excite the learner, or the learning goals will not be achieved. In this article, I'll show you some ways, based on my own experience as an independent Web and e-Learning developer, that you can use Macromedia® Flash MX 2004 (and Flash MX 2004 Professional) to develop engaging and exciting e-Learning content. With the capabilities that have been added to Flash MX 2004, I believe it should definitely be in your toolbox if you are delivering your training via a Web browser.

Macromedia Flash has emerged as the leading tool for developing multimedia for the Web. Most Web developers consider Flash (version 4 and beyond) to be the standard for online multimedia — and if they want motion graphics on their Web sites the easiest way is to develop in Flash. But what can Flash actually do for the e-Learning development community? Sure, Flash can create some interesting motion graphics, but are there specific reasons why e-Learning developers should seriously consider using Flash?

You bet there are! Just to start the

*As e-Learning matures, the tools that developers use to create content tailored to the demands of the online environment are also maturing. One of the best examples of this is Flash. From simple beginnings, it has become a flexible programming environment that can solve many of e-Learning's most vexing problems. Here is a summary of the reasons you should add Flash development skills to your repertoire.*

**Extra Insights** *on page 9*

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As in any profession, there are many different perspectives about the best strategies, techniques and tools one can employ to accomplish a specific objective. This **Journal** will share these different perspectives and does not position any one as "the right way," but rather we position each article as "one of the right ways" for accomplishing a goal. We assume that readers will evaluate the merits of each article and use the ideas they contain in a manner appropriate for their specific situation. We encourage discussion and debate about articles and provide an Online Discussion board for each article.

The articles contained in the **Journal** are all written by people who are actively engaged in this profession at one level or another — not by paid journalists or writers. Submissions are always welcome at any time, as are suggestions for articles and future topics. To learn more about how to submit articles and/or ideas, please refer to the directions on our Web site: www.eLearningGuild.com.

list, consider delivery of dynamic content, quick downloads, compatibility with a large variety of file formats, and rapid development time. These, of course, are the basic reasons Web developers rely on Flash. But there's more.

The Flash Player works with all current browsers, so anyone can view Flash-based media. This is a powerful selling point for online learning applications. According to a survey in March 2004 by the market research organization NPD Group, the Flash Player is the world's most pervasive software platform, reaching 98% of Internet-enabled desktops worldwide, as well as a wide range of other devices.

Furthermore, Macromedia has been closely associated with e-Learning since the company was established, and has used this "inside knowledge" of the e-Learning developer community to guide the refinement of Flash. This relationship between Macromedia and the e-Learning market not only helps developers create media that helps learners improve their performance, but also aligns those developers with an application that continues to serve their needs in the present and, most likely, in the future.

## Flash grows up

Flash has overcome — and continues to overcome — problems in four areas that are critical to successful delivery of e-Learning over the Web:

- Its own early reputation as a limited tool, often used in inappropriate ways
- File sizes — many authoring tools on the market, including some from Macromedia, were designed to create applications for delivery from CD-ROM and do not meet the constraints of the online learner.
- Multimedia streaming compatible with any bandwidth
- A sufficient body of support — books, training, and independent developers — to facilitate use in small and medium-size businesses as well as in large corporate, education, and governmental organizations

### *ActionScript improvements*

Developers who watched Flash grow up were probably turned off by the tool, because it was first used just as an annoying splash screen ("Skip intro please...") and interactive "experiential" Web page creator, complete with microscopic text, thumping techno soundtrack and lots of things moving around. Of course e-Learning should be engaging, but Flash media was, at first, more often simply a large distracter if not an outright embarrassment! Using pulsing, undulating and spinning effects in Web and e-Learning projects effectively made the learning secondary to the surface look and feel.

Some of these problems were due simply to the novelty and ease of use of Flash. Many designers and developers were so taken by what they could do quickly, that for a while form overcame substance. But a more significant problem was that, at first, Flash developers relied on the graphical time line, where layers and objects could be added to the Flash stage through simple drag and drop. They didn't know there was another way to create a Flash application, and the programming language, until the MX version of Flash came along, was simply too limited and hard to use.

Flash added a whole new level of programming capability when ActionScript, the programming language native to Flash, was enhanced to support complex application design. ActionScript now allows developers to create interactive Flash applications that change, update and dynamically interact with the user. Yes, users can still just sit back and watch a Flash movie, but Flash MX 2004 can create and deliver entire interfaces, video elements, and other high-end media from within an application, right in the browser.

### *Developer advantages*

Flash content provides a number of advantages for the developer. Three of these are of great importance, and, in part, may account for the rapid adoption of Flash in the e-Learning community.

#### Small files and vector graphics

First, Flash produces relatively small files. Small files download very quickly and enhance the user's experience.

In addition, images that Flash developers can create from within the program are vector-based. Vector images allow for sharp and distortion-free animations, and vector graphics are resolution-independent, which means they can be resized without any loss of quality. An added benefit is that the resulting files are much smaller than those used for bitmapped graphics.

Vector graphics are composed of

anchor points joined by lines and curves. Mathematical functions tell the computer how to display the color, shapes, and lines that make up the image. This doesn't mean, however, that the end results appear blocky or unrealistic. Subtle curves, color gradients and complex, "brush-like" strokes are all common in vector-based images. In fact, because of the high detail that the mathematical functions create, vector graphics can come very close to simulating "real life" painting effects.

**Speedy streaming**

The perceived download time the end-user or learner experiences is quicker in another way. Flash files stream into the browser. What this means is that the viewer can begin seeing an animation before the entire file is downloaded. As a result, the learner will have less time to wait for "something to happen" — the animation begins to play before it is completely downloaded.

**Popularity means plentiful support**

Flash is very popular in the Web development community at large, as well as in the e-Learning developer community. Over 60% of The eLearning Guild members currently indicate that they use Flash to develop e-Learning. (*Editor's Note:* See the "Report on Flash Usage and Practice in e-Learning Development" published June 6, 2004 for more details. Guild Members can download this Report from the Guild Research section of The eLearning Guild Web site.) Search Amazon for books on Flash and you will get hundreds of results. Perform a Google search for "Flash Tips" and you will get thousands of results. Learning Flash, getting support for it, or finding help when you are stuck in the development process is relatively easy.

## Building interactivity

Interactivity with the learner is the key to successful e-Learning projects, no matter which learning theory you assume in your design. You may have read, in *e-Learning and the Science of Instruction* (by Ruth Clark and Richard Mayer), about

the research on the importance of interactivity. "Interaction" in e-Learning means providing practice exercises where the learner is able to apply what is taught or modeled and obtain relevant feedback on their performance. Practice exercises may be as simple as responding to multiple choice questions, or identifying statements as true or false. They may also be more complex and more reliant on computer capabilities, such as dragging and dropping objects to their correct locations in a schematic. Practice exercises may even include elaborate simulations, where the learner manipulates various elements to learn, experientially, the effects of such manipulation on the entire system being simulated.

The most important aspect of interactivity, however, is the learner's psychological process. Clark and Mayer suggest four guidelines, derived from research, for exercise formats that provide the necessary learner engagement:

- The exercise must mirror the job environment and the desired thinking processes, not mere rote memorization and repetition.
- Better learning comes from inserting more practice exercises throughout the lesson, rather than having an "end of module quiz."
- Better learning takes place when the format of the practice exercises conforms to the principles for using media elements revealed through the research that Clark and Mayer summarize in their book.
- Better learning takes place when the exercises train learners to provide their own questions as they study explanatory material.

Flash now offers several features designed specifically to accommodate these points. But there is one more set of issues developers must with deal in order to create successful e-Learning.

### *Interactivity challenges*

Excellent though these ideas about interactivity may be, there are some challenges to their application within the typical e-Learning program. I would summarize these as fitting into three categories.

#### Bad design

Unless an e-Learning program engages the learner to do something, it is apt to turn into screen after screen of text. Reading text off a monitor screen is a tedious process, particularly if a learner is forced to do so for long periods of time. All that text is not only ineffective (see Clark and Mayer for the research), it will also kill the learner's desire to learn. Clicking on a "Next" button or hitting a space bar, over and over and over, is not interactivity — it is water torture.

#### HTML limitations

Building interactivity into Web-based training programs has always been challenging. The traditional language of the Web, HTML, does a great job of laying out text and positioning graphics, but links and page jumping are not real interactivity. Although there have been some awesome attempts to create interactivity using only links and HTML, the results are certainly not as engaging as, for example, interactive audio and video.

**Cross-platform issues**

Other languages and technology (e.g., Dynamic HTML or DHTML, JavaScript, Java applets) for delivering interactive content on the Web address some of the limitations of HTML. While these alternatives are powerful when used correctly, quite often the user's machine limits their power. Is the user's browser capable of displaying this technology correctly? More often than not, the answer is "No." Computers are like snowflakes... every one is different. Different browser versions, different operating systems, different plug-ins, different monitor screen resolutions and different user hardware all impact how the e-Learning will display on their machines. This is the most frustrating part of working with the Web — what I see and develop on my screen looks different on my partner's screen, and on my customer's screen, and so on.

In environments where the organization has dictated platform, browser and screen resolution across the organization, this issue is less of a problem. However, these instances are few and far between — one rarely has the luxury of developing for an organization that has completely standardized on all these details.

### *Interactivity support in Flash*

e-Learning developed in Flash can avoid most, if not all, of these problems. Basically, if learners have the Flash player (which 98% of them do), they can see your media. Flash is platform, browser and resolution independent. What you see while developing is what learners see. It is important to understand this concept — it is a huge benefit to the developer!

In addition, recent changes to Flash directly support relatively easy implementation of interactive exercises of various kinds. I'll use the rest of this article to review the more important of these developments.

## The Flash multimedia melting pot

From the e-Learning developer's perspective, Flash MX 2004 is ideal for interactive multimedia. It has the ability to import all forms of static images, font faces, audio files and video files. Developers can import common image files (JPEGs, GIFs and PNGs), as well as images created from programs like Macromedia Freehand and Fireworks, and Adobe Photoshop and Illustrator. Flash can import audio files in MP3, AIFF, AU and WAV formats. With respect to digital video, Flash can import any standard file supported by QuickTime or Windows Media Player, including MPEG, DV, MOV and AVI. (Just like the learner's computer, the developer's computer must have the correct video codecs installed.)

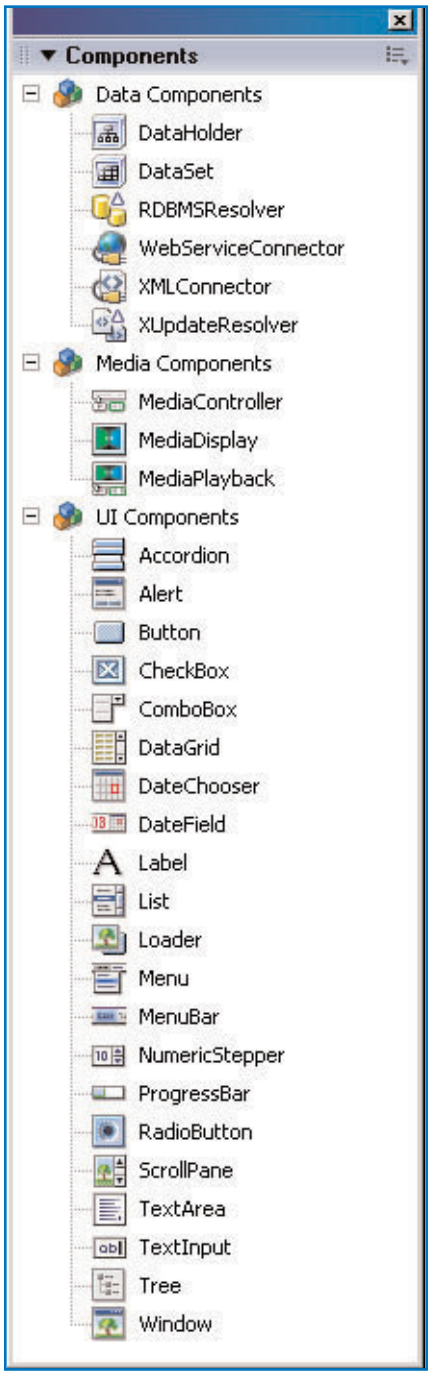


**FIGURE 1** *These are all of the Flash components included in the Professional version of Flash MX 2004.*

After importing static images, during development you can manipulate, scale, rotate, skew, or move them; and even make it possible for the learner to perform various manipulations interactively. You can manipulate videos in the same way that you can manipulate static images; they can be animated and masked (a method of defining what is viewable, used to create visual effects), and you can create VCR-type controls for the learner's use. These features allow a developer to add interactivity to multimedia elements in a way that takes e-Learning projects to the next level.

### *Building a Flash movie*

Imagine you wish to create an online video tour of your corporate office for a new-hire orientation program. You spend considerable time videotaping the main hallways in your organization in an effort to simulate the new hire "walking the halls" of the company.

After optimizing the video and audio, you import them into Flash and add appropriate interactive features to support your learning objectives. (*Editor's note:* For tips on optimizing video, see Steve Haskins' *Extra Insights* column in this issue and his articles, "Repurposing Taped Video for e-Learning, Parts I and II" in **The Journal**, March 3 and March 10, 2004.) The first video segment plays until the viewer is given a choice to continue forward, turn right or turn left. You have taped tour points in all three directions and imported them into Flash, but only after the user indicates which direction to move does the corresponding video segment play. All three choices reside in the Flash program (now referred to as a "movie"), but the user determines the way the program acts. Choose "right," and the program jumps to the video segment of the user turning right. Choose "left" and the version with the user moving left will play. This is the same Flash file, but the results change based on user input.

### *Playback and delivery advantages*

The example above is a simple one — the movie jumps to different locations of the video based on user action. But there are other ways in which users can change the results of a Flash movie. Complex simulations where concepts like inventory, time, and sales, and how the learner influences these items, can also be programmed in Flash.

Like a big melting pot, Flash takes different media types and combines them into a finished product, called a SWF (usually pronounced swiff) file because the file extension is ".swf". To hear the MP3 music file included in the Flash application, users don't need an audio player installed on their machine. To view QuickTime or other movie files, users don't need to download the QuickTime player, or any other player. Once these elements are imported into Flash and the movie is optimized and exported to its final format, the user just needs the Flash player to view everything. The complex interactive video program described above can be delivered via a single SWF file, which plays in the browser.

e-Learning developers are no longer paralyzed by plug-in policies or by learners who don't have all the plug-ins necessary for multiple media formats installed on their machines. One plug-in, the Flash player, is all that is required. And, if the learners have a current browser, they are ready to view and interact with your online curriculum.

Before I go on to describe the specific features that support better e-Learning through Flash, you will need to know about the two versions of the product. While both versions can produce identical results, they offer different features and different levels of support for the developer.

## Which version?

Flash MX 2004 has been released in two versions: Flash MX 2004 and Flash MX 2004 Professional. Many people are confused about which version to choose, and while both versions can do all of the same things, Flash MX 2004 Professional contains more of the advanced features I'll mention in this article. If you can afford it, go with the Flash MX 2004 Professional because it contains some amazing additions that e-Learning developers will use to improve the overall quality of their projects. Also included in the Professional version is a variety of video elements and components that make life easier for the e-Learning developer who intends to incorporate video elements into a project. These additions make using video segments in the Flash project a little easier to manage and optimize.

Users of Flash MX 2004 Professional will be able to rapidly develop projects using the additional components and the Screens functionality included in the package. Purchasing only the Flash MX 2004 version means that you can still create the functionality of the components or screens, but you will have to do it by hand-coding your own ActionScript. For many users, this is not a good option when rapid development is a priority.

## Flash components

There has long been a somewhat divisive skills issue in the Flash development community. There is a split between developers, who are ActionScript experts and thus able to program complex functions and features into online applications, and designers who create the graphical user interface (GUI) and make the application professional in its appearance. Traditionally, developers weren't very good at creating the "graphic" stuff, and designers struggled with learning ActionScript.

Macromedia has addressed these issues in the current version of Flash by creating a group of pre-built elements that can be easily dropped into any program. These elements, or components, do many different things, but they have the ability to accelerate development and to address and simplify project staff skills issues. (See Figure 1 on page 5.)

### *Component types*

There are three types of components in Flash MX 2004: Data Components, Media Components, and User Interface Components. All three of these types (a total of 30 components) are available in Flash MX 2004 Professional, but only 13 of the user interface components are available in Flash MX 2004.

**Data components**

Data components allow a learner to load and manipulate information from data sources.

**Media components**

Media components allow learners to play back and control streaming media. The media components include MediaController, MediaPlayback, and MediaDisplay. The VCR controls that a developer might want to add to a video, for example, are built with these components.

**User interface components**

User interface components allow the learner to interact with a Flash application by using radio buttons, checkboxes, and text boxes, for example.

### *The component advantage*

Rather than creating custom buttons, scrolling text boxes and lists, the designer or developer simply drags these items out of the Components panel onto their project, sets them up by defining various properties and parameters, and they are immediately operational. Adding VCR controls to an imported video segment used to require hand-coded ActionScript, but with the video control component, for example, development time is radically reduced.

Prebuilt ActionScript components are a good thing for e-Learning developers.

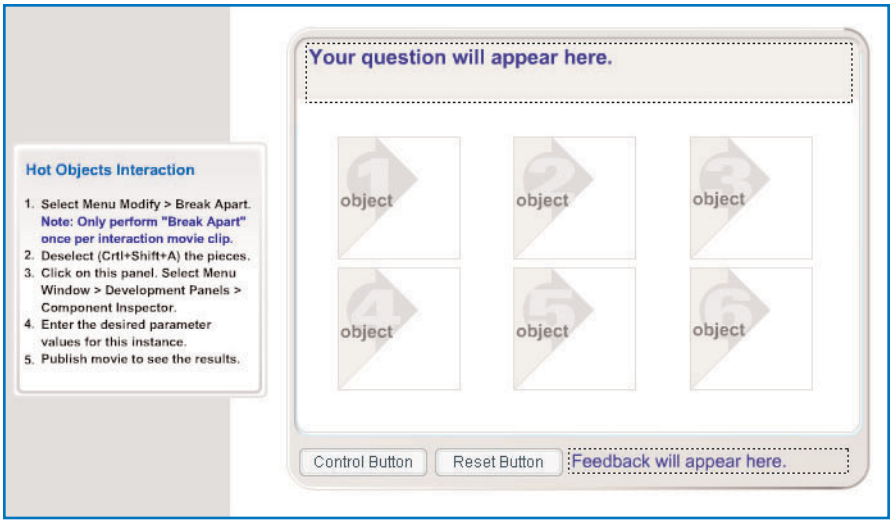


**FIGURE 2** *The Hot Objects Interaction requires the learner to choose from among several objects in response to a question. Feedback appears in the panel after the learner makes a selection.*

Traditionally, e-Learning developers tend to have design backgrounds. While there are now larger numbers of experienced ActionScript programmers working on e-Learning projects, most users who are just getting started with Flash still find themselves more comfortable with the designer role. Flash Components give the novice user the tools to build complex applications without having to master ActionScript first.

## Flash learning interactions

Similar to components, Flash learning interactions are ready-made interactive elements that the developer can rapidly add to a Flash-based project without writing any ActionScript. Even for experienced ActionScript programmers, these features accelerate the development of quizzes, questionnaires and exercises in online learning applications. (*Editor's Note:* For a tutorial on the use of learning interactions and components, see Paul Clothier's article, "Tutorial: e-Learning with Flash MX 2004" in the November 17, 2003 **eLearning Developers' Journal**)

There are six basic learning interactions to choose from, including true/false, multiple choice, fill in the blank, drag and drop, hot spot and hot object interactions. (See Figure 2 on page 6.)

The developer customizes the content and flow of each learning interaction from within a parameter panel (see Figure 3, below). The parameter panel is a simple screen where the developer determines feedback text and location, data tracking and other "what happens after the user clicks" types of resolutions.

In addition to the individual interactions, the current version of Flash includes a handy element called the quiz template. The quiz template handles cumulative scoring and is AICC and SCORM compliant. All of the ActionScript code necessary to create these quizzes and track the data is already created.

## Flash screens

New to Flash MX 2004 Professional is a way of programming Flash movies in a vertical fashion called Screens. Similar to Microsoft PowerPoint slides in appearance, screens create interconnected "panels" of information and content that behave somewhat like a traditional presentation (see Figure 4, below).

### What are screens?

Screens are a more visual way for you to create your presentations or form-based applications because they act as if they are independent "containers" where you can add content, buttons, movies, animations, learning interactions and other complex scripting. Screens are the individual pages of content of your application, linked together by navigation buttons. (*Editor's Note:* Paul Clothier used Screens to create a form-based application in the tutorial previously referenced.)

When you work with screens in Flash, the actual design window changes and visually represents the current document as a series of master and secondary screens in a hierarchal structure. You can manually jump from screen to screen, add content and make changes as you see fit. The power in this structure is that you can insert independent elements to each page and have them work only on those pages. In other words, you animate the content on each screen using the Timeline.

### Consider the benefits of screens

All the difficult navigational programming work is done for you. Using the ready-made Screen behaviors, you can

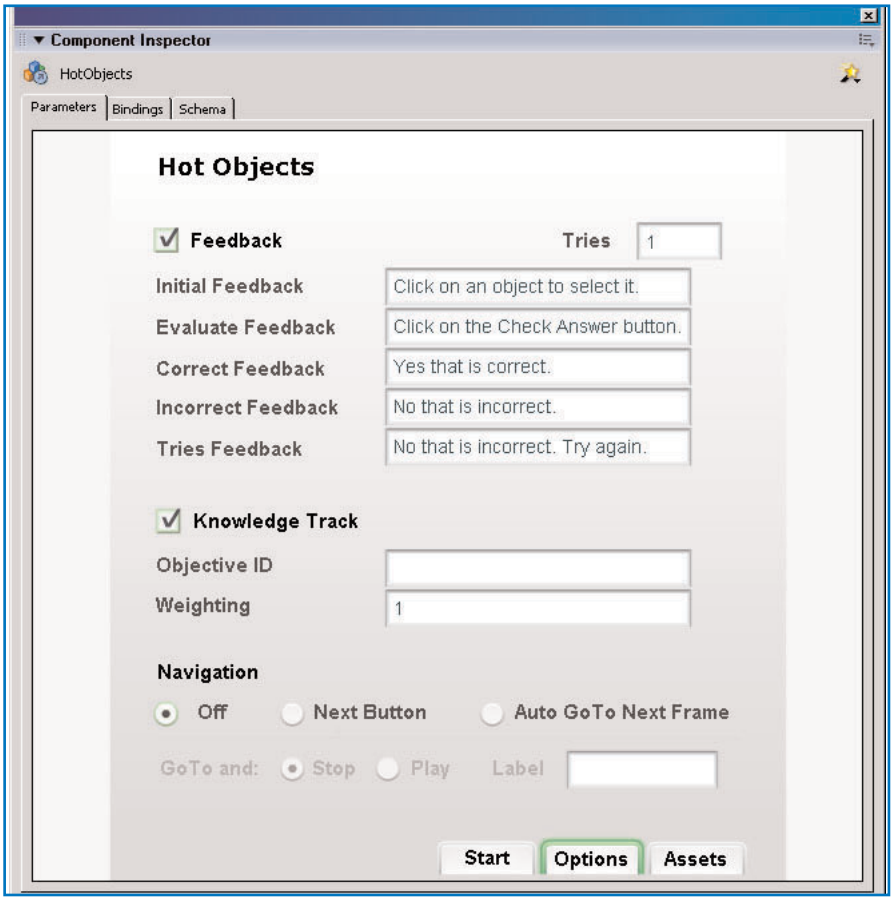


**FIGURE 3** *The developer sets up the operation of the learning interaction by using the parameter panel in the Component Inspector.*

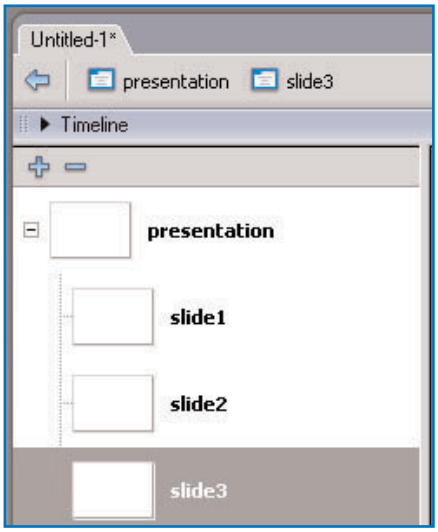


**FIGURE 4** *Screens (or forms) are a visual method for creating a presentation in Flash, with more power than a basic PowerPoint slide show.*

add functionality to buttons and other navigation elements without programming a line of ActionScript by hand.

The implication of Screens for e-Learning developers is awesome. For instance, a developer can create a single set of master and secondary templates and store them as the master files for all e-Learning developed by an entire group or department. The look and feel for all training programs would remain consistent, and all the designers would need to do is add content, images and interactions. Yes, there is some up-front work building the templates and adding the functionality, but after that is complete, rapidly produced Flash-based e-Learning becomes a reality.

### Flash and e-Learning development — a match

I have given you this rapid tour through the new features of Flash that are, in my experience, of most importance to e-Learning developers. Flash may not be the only tool for delivering e-Learning over the Web, but it certainly offers significant advantages in many situations.

Earlier this year, the Journal article "Flash Gurus Tell All" offered my suggestions and those of three other Flash experts concerning methods and resources for getting started in Flash. I hope that I have offered you some new reasons for considering adding Flash development to your inventory of skills, and I look forward to seeing the fruits of your work.


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***Additional information on the topics covered in this article is also listed in the* Guild *Resource Directory.***

***Stephen Haskin has been involved in the world of digital video for education since the late 1980s and in computing since the 1970s. He has worked in the worlds of corporate education and training and film/video production. Always keenly interested in medicine and medical training, he moved to the arena of academic medicine five years ago. He currently directs the development of Internet and Intranet educational web sites and works on video projects for the University of Michigan, Department of Surgery. Steve is also the author of several books on video production in the computer environment, and on wine enjoyment (yes, wine). Contact him at shaskin@med.umich.edu***

# Editing Video with Premiere

## *Part 1: Making a Cut*

This will be the first in a series of columns about video editing using Adobe Premiere or Premiere Pro software. Video editing on a computer, no matter software you use, is part science and a lot of art. There's the science of how to use the software in order to edit video. Then there's the art, and it's subjective for the most part. One person's beautiful cut is another's butcher job. It's all (mostly) in the eye of the beholder.

*A small aside:* I will not get into the Mac vs. PC wars. Both platforms are terrific for editing video. Final Cut Pro is a terrific program, but it's not more terrific than many programs available for the PC. You use what you use, and that's the end of it.

Why edit video yourself? Why do you need to edit video? Well, it could be because you have to, or because you want more control of your department's output. Or it could be because you just shot some video and you have to make a coherent whole out of all your scenes. Or you might be repurposing some video you already have and need to take a piece out of the latest version, or insert some new material. There are as many reasons to re-cut video as there are reasons to make an original video.

### Getting started

We're going to keep it simple and only do one task at a time. Today, we'll make a cut in video. It's not as easy as it sounds and I'll demonstrate how 1/30th of a second can make a world of difference. In future columns, we'll do dissolves, fades, show when effects work (and when they don't), and we'll go through the steps on matching sound and image quality (which is sometimes nearly impossible if you're editing an older video).

We're going to assume (I hate that word) that you already have downloaded the video samples and stored them somewhere on your computer, and that you how to know how to start Premiere (or whatever). (*Editor's Note:* See the instructions in the online Abstract for this issue of **The Journal** for the location of the samples.) These video clips are part of a real-life example of what we do for patient education. It's a video we made for our section of Plastic Surgery here at the University of Michigan. It's meant to tell about the things you would need to know and do after your operation. But don't worry, there's no surgical footage, just instructions from a nurse, so you won't have any reason to get queasy. This is a talking head video.

The first thing you'll want to do (I know this might sound redundant but...) is to open Premiere or Premiere Pro and start a new project (see Figures 1 and 2). For purposes of this demonstration, choose any project you like. In Premiere Pro, you'll have to name it before you can begin. Incidentally, under


FIGURE 1

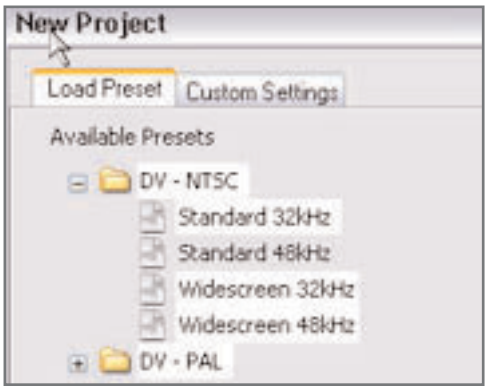


FIGURE 2

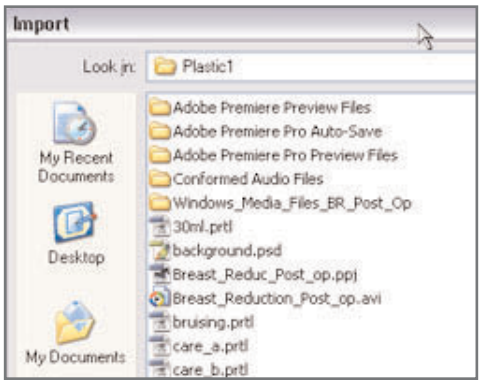


FIGURE 3

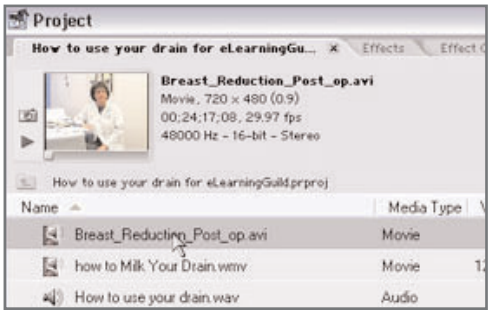


FIGURE 4

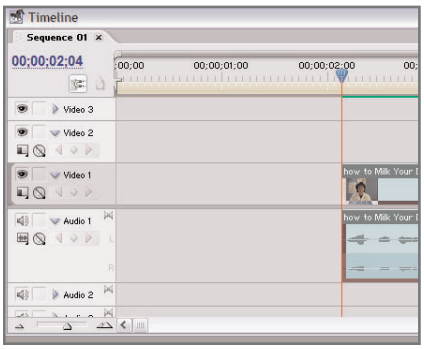


FIGURE 5

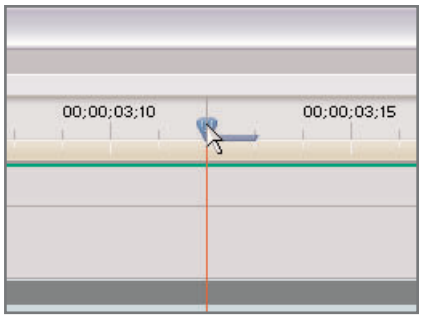


FIGURE 6

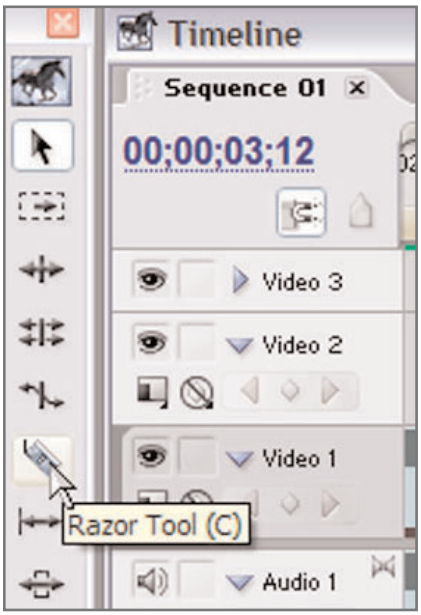


FIGURE 7

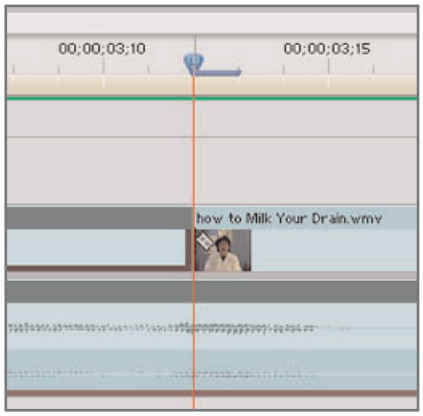


FIGURE 8

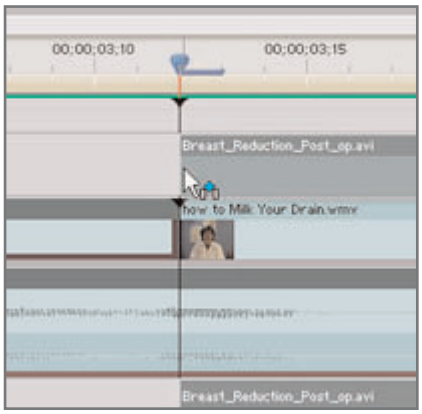


FIGURE 9

NTSC (or PAL for that matter) the 48kHz refers to the audio and not the video. (NTSC is the video standard in North America, PAL is the standard in Europe and much of the rest of the world.)

## Importing video

Now you have a new project and you are ready to work. You need to import your video and other 'assets' into the project. (See Figure 3.) Assets are anything you use in the production of your video on the timeline: video clips (with or without matching audio), or audio clips like music or sound effects or anything else that makes noise that you want to hear in your finished video. Assets can also be still images (we have some in this particular project) like jpg files that are used for conveying information to the viewer. Titles, animations... assets are anything that appears on the timeline.

Grab clip one. (See Figure 4.) Just roll your cursor over it and click — then drag it up to the timeline. Make sure the clip starts around the one to three second mark, (See Figure 5.) as this will allow you to move the whole project later so you can add opening titles and credits.

OK, the clip is there. But it doesn't sound right from the beginning. When the clip is a "talking head" like this, the sound is more important than the video itself. You can hear me talking at the beginning of the clip and that's no good. *Another small note:* We're not working with Hollywood video here, where 100 people are on the set and lighting everything, decorating the set, making sure the sound is right, etc. etc. etc. We're making real video for real people. Frequently there's only one person both shooting and doing the sound. It's just important to understand what you're working with.

## Making the cut

So in order to cut the video, you have to cut the audio first. Take the timeline cursor (see Figure 6) and move it back and forth across the clip until you hear the exact place where you want the sound to start. The act of moving the cursor back and forth across the clip is called scrubbing. This time we're scrubbing audio, but there are many situations where you have to scrub the video to find the exact visual frame that is appropriate for your project. It's all part of the same thing.

So you've found the place where you think the audio should be cut. Select the Razor Tool (see Figure 7) and make your slice. The single cut should cut both the audio and the video, but don't worry if it doesn't. Sometimes you want a little tab of video to hang out past the audio to give you some visual cues. So cut the audio and the video with the Razor Tool. This will be the beginning of your video.

Now let's find the end of the clip. Choose the selector tool and start scrubbing the audio again. Remember this is a 'talking head' and as such the audio is more important than the video. The video is important, but not as important as what is being said. Find the point where she stops talking and do the same with the Razor Tool. You might want to leave a little extra video there, a sort of "hanging chad" of video, if you will. (See Figure 8.) *Helpful hint:* Sometimes you need to get closer or farther from the video on the timeline, so you need to zoom in or out. You can use the plus **+** and minus **-** keys for this. Zoom in with **+** and don't worry about having to shift. It's really the **=** and **-** keys just to the right of the zero. I'm forever zooming in and out. It's probably the handiest tool you have in the toolbox of Premiere.

Now drag clip two onto the timeline and do your audio scrubbing again at the beginning and end. (See Figure 9.) Make your cuts as you deem appropriate. Now we can put the two cuts together. Put them close together on the timeline. You'll notice that at the beginning of the second cut, our nurse turns. Now we can use the video of the turn to follow the sound of what she's saying. Cut the video at the beginning of the second cut so it begins as she makes the turn. You may have to trim off the little hanging chad of video, or you could move cut one on top of cut two so the three or four frames overlap. Where they overlap will look like a grayed out area on the timeline. This is actually a small dissolve and will perhaps smooth the transition where she turns. This is a place where you can use your judgment. Use it or not. That can be your choice and there is no wrong answer.

In the next column we'll look at real dissolves and what they mean, how they work, and a little of why they work too.

## The eLearning Guild™ is a global Community of Practice

Through this member-driven community of designers, developers, and managers of e-Learning, the Guild provides high-quality learning opportunities, networking services, resources, and publications.

Guild members represent a diverse group of instructional designers, content developers, web developers, project managers, contractors, consultants, managers and directors of training and learning services – all of whom share a common interest in e-Learning design, development, and management. Members work for organizations in the corporate, government, academic, and K-12 sectors. They also are employees of e-Learning product and service providers, consultants, students, and self-employed professionals.

The more than 13,000 members of this growing, worldwide community look to the Guild for timely, relevant, and objective information about e-Learning to increase their knowledge, improve their professional skills, and expand their personal networks.

### Resource Directory

The Guild hosts the e-Learning industry's most comprehensive resource management system that includes more than 4,500 (and growing) e-Learning related resources in a searchable database. Guild Members can post resources and can update them at any time.

### Surveys & Studies

The eLearning Guild conducts continuous polls and more than a dozen surveys and studies each year – including an annual salary survey. Guild Members have unlimited access to all data and analyses.

### The eLearning Developers' Journal

The Journal provides in-depth articles about how e-Learning professionals can make e-Learning more successful in their organizations. It's a weekly online publication in PDF format and Guild Members have unlimited access to the searchable archive of every issue published.

### Job Board

The Guild Job Board should be your first stop for solving employment related issues. Whether you are an employer looking to fill a key position or an e-Learning professional looking for a new job, you'll find success here.

### Info Exchange

The Info Exchange enables members to ask questions of, and get feedback from, other members around the world in a discussion board format.

### Member Discounts

Guild Members receive a 20% discount on all optional services offered by The eLearning Guild that are not included in your membership. These services include all face-to-face and online events produced by the Guild, special publications, and other services as they are developed.

### The Online Forum Series

e-Learning for e-Learning professionals! *The Guild Online Forum Series* enables you, or your team, to explore the most pressing issues facing e-Learning professionals today with some of our industries smartest people – right from your desktop or conference room.

### Engaging Symposia

The Guild's unique and focused symposia drill into the most critical issues for e-Learning designers, developers, and managers. These are intensive learning events with limited enrollment. Participate in person or online, as an individual or as part of a team.

### Annual Conference

*The eLearning Producer Conference,* held in the fall each year, offers comprehensive and in-depth content for all e-Learning professionals in a collegial environment conducive to learning and sharing.

### Event Proceedings

If you attend a Guild event, you have immediate access to all event proceedings. If you do not attend, as a Guild Member you still have access to the proceedings 90 days after an event ends.

### Guild e-Clips

A Guild Members-only publication sent by email every week. It's short, easy to read, and includes "clips" designed to keep members connected to the latest information about Guild publications, surveys & studies, and learning events.

### eLearning Insider

The *eLearning Insider* is sent by email every other week and includes current e-Learning industry news, excerpts from Journal articles, highlights from Guild surveys, e-Musings, and information on Guild matters.

### Professional Development Through Active Engagement

In order to maintain a vital community and provide relevant information, The eLearning Guild seeks the active involvement of all Guild Members and Guild Associates. Consider these ways to engage:

***Speak at Guild Events:*** Members and Associates are encouraged to submit presentation proposals for any and all Guild events.

***Write for the Journal:*** *The eLearning Developers' Journal* articles are written by industry leaders and practitioners just like you who are working in this field every day.

***Join the Program Advisory Committee:*** This committee works to craft the program content of all events produced by the Guild.

***Join the Research Advisory Committee:*** This committee works to identify the topics for Guild surveys and studies, and also develops the survey instruments.

**The eLearning Guild** organizes a variety of industry events focused on participant learning:

The eLearning Guild's ONLINE FORUM SERIES · THE ELEARNING FLASH DEVELOPER'S SYMPOSIUM · The eLearning Instructional Design symposium · eLearning Producer CONFERENCE & EXPO 2004