

Video plus Components make it so much better

Web Animation Software Macromedia Flash MX

by Robert Wong

So, you're a Flash 5 user debating whether or not to upgrade to the newest version—Flash MX.

What's the rush? After all, how many people out there actually have Flash Player 6 installed? Even if you do upgrade, wouldn't it only make sense to hold off using the new MX features until you know your target users can actually see your creation? So what's the point in upgrading now? Are the new features in Flash MX significant enough to justify the upgrade?

A BRAND NEW USER INTERFACE

At its core, Flash MX is still the same application that you know and love—there are still timelines, movie clips, symbols, keyframes, instances, your library and your

actions panel. It still supports vector-based images and it still outputs really compressed streaming SWFs. Flash MX, however, gives you all that—plus a lot more.

The first thing you'll notice when you launch Flash MX is the new user interface. Don't get too worried just yet. The main Flash elements are still there—stage, timeline, actions panel, toolbar, etc. But where you'll notice a significant difference is the way you interact with the rest of the panels. The familiar tabbed panels from previous versions of Flash are now gone. In MX, a property inspector and a brand new style of dockable panels have replaced these tabbed panels.

NEW PROPERTY INSPECTOR

The property inspector is a welcome new feature, and it's very intuitive to use—especially if you've ever used Dreamweaver (because it works just like Dreamweaver's property inspector). Instead of having a workspace cluttered with panels that you

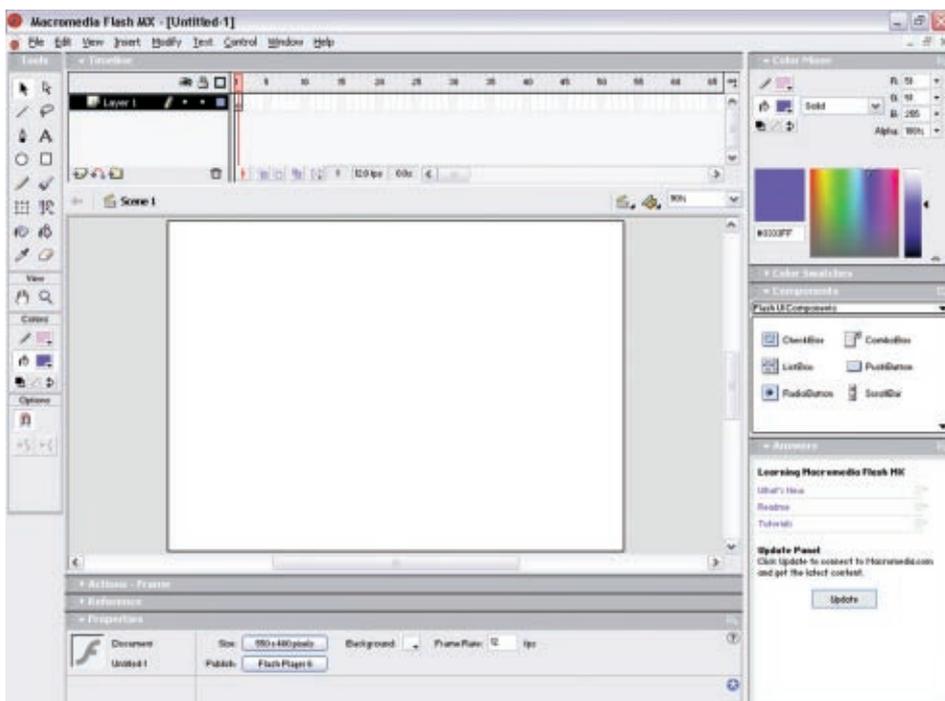
only need some of the time, the property inspector shows you only relevant, context-specific settings, allowing you to immediately see what properties you can change. If you have a frame selected, for example, this is where you would set the frame label, the tween and the sound properties. If you have a shape selected, this is where you would change its stroke and fill properties. The property inspector gives you a dedicated area on your workspace to make changes to the currently selected item.

NEW PANELS AND LAYER FOLDERS

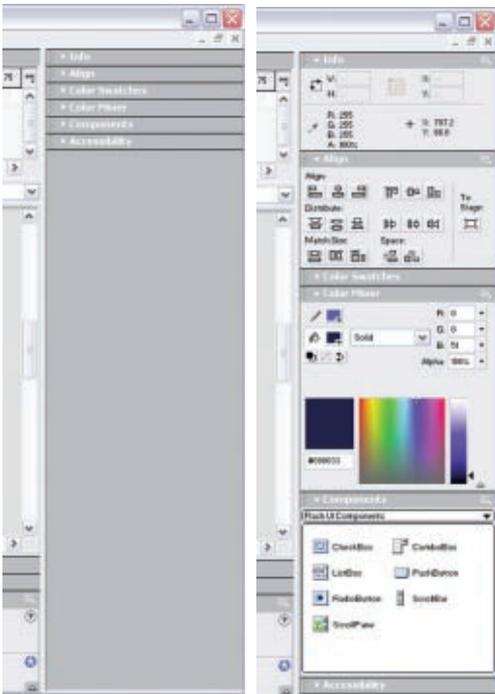
Macromedia has introduced a new style of customizable panels in its entire MX development product family—Flash MX, Dreamweaver MX, and Fireworks MX. To be honest, it took me a while to get used to these new panels. Sure, you can customize your panels and put them wherever you want, but try docking a whole bunch of them together and then expanding and collapsing them one by one.

All these panels are now docked to each other so that whenever you expand or collapse a panel, the surrounding panels end up shifting up and down to accommodate the newly expanded or collapsed panel. It's a bit annoying. What it means is that you shouldn't get used to moving your mouse to the same place for a given panel because it may be in a different place, depending on which panels you have expanded at that time. Like I said, this takes some getting used to; however, the benefit of learning how to use these new dockable panels is that it makes it much easier to jump to any of the other Macromedia MX products.

Flash MX has also added layer folders, and while this particular new feature doesn't advance the capabilities of Flash in any significant way, it's a great help when it comes to keeping your timelines organized. Now you can place groups of timeline layers in their own expandable and collapsible folders. Layer folders can also be named and placed inside other layer folders, so you can organize your timelines in a way that's meaningful to you. The



New Flash MX *USER INTERFACE* (using the 'Developer [1024x768]' built-in panel set)—it's new, but it's still familiar.



COLLAPSE all your panels until you really need them (left), or **EXPAND** some of them for instant access (right). The choice is up to you.



ADVANCED OPTIONS are now available when you create or edit your symbols.

nice thing is that you can do all this without affecting the way you implement the code in your Flash movie (i.e. there is no need to type in `_root.layername.movieclip_mc` to refer to a movie clip on your `_root` timeline).

IMPROVED ACTIONSCRIPT EDITOR

Flash's ActionScript Editor has been enhanced to allow you to implement your code quicker and easier. Sure, some of the enhancements are just cosmetic and nice-

to-haves—like the improved color coding and the display of line numbers—but some will actually save you time. Even the most advanced ActionScript coder can't remember every single method for every single object, or even every single parameter for every single function (although a select few of you might disagree). Flash MX's code hinting is available to you as you type your code, and when it pops up, it appears right where your cursor is. When you type in a reserved function, it will hint at the available parameters for that function.

Another timesaver is the fact that when you want to look up the definition of a reserved word, all you have to do is place your cursor on that word and then click on the reference button. Like magic, the reference panel will open up, giving you the definition of that specific word. And the ActionScript Editor now comes with a debugger that includes breakpoints, code stepping and a function call stack.

COMPONENTS: A GREAT ADDITION

Components are a terrific new addition to Flash MX and in my opinion one of its best new features. What components offer is the rapid development of application-type Flash movies, or what Macromedia calls "Rich Internet Applications" (we'll get into this later). These are the type of Flash movies that allow users to do work, rather than just browse content. Flash MX comes with a number of components ready for you to use. These include checkboxes, listboxes, comboboxes (dropdown menus), push buttons, radio buttons, scrollbars and scroll panes.

If you've ever implemented any of these in Flash 5, you know that you had to create them from scratch—a very time-consuming and tedious task. It was certainly doable—it just took a very long time. Now, with Flash MX, implementing a dropdown menu is as easy as dragging the combobox component from the components panel onto the stage and populating it using the property inspector. But here is where the true magic of compo-

Helpful Tip CODE HINTING ON YOUR OWN OBJECTS

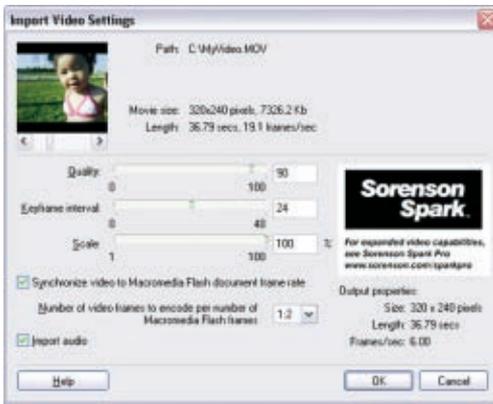
When giving your objects instance names, always end the names with the special reserved "suffix" that is specific to the type of object that you are naming. For example, always end the instance name of your movie clips with "`_mc`", your text objects with "`_txt`" and your sound objects with "`_sound`". By naming your instances this way, as you type in the instance name in the actions panel, the code hinting feature will display the relevant methods and properties available for that type of object. Try it: In your actions panel, type in: "my-MovieClip_mc." (notice the period at the end). Like magic, the code hinting feature will be full of movie clip specific methods and some of its available properties.

nents comes in. At run time, you can add, remove, or edit an item in your dropdown menu, and even disable the dropdown menu altogether simply by invoking the component's built-in methods.

The nice thing about components is that there are always new ones to download and install. Macromedia already has a second set of user interface components and a set of charting components ready for people to use. Also, third party developers are being encouraged to create their own components and make them publicly available for download.

DYNAMIC LOADING OF JPEGs AND MP3 FILES AT RUNTIME

Since version 4, Flash has had the ability to dynamically load in text on the fly from an external source, whether it be from a flat text file or from a database. But if you've ever tried building a Flash movie that dynamically loads images from an external source, you know what a pain it was—well, it wasn't so much of a pain as it was an inconvenience.



Flash MX now has **NATIVE SUPPORT** for video import and playback.

Now a JPEG can be loaded into your movie at runtime just as easily as a flat text file, saving you from preloading images that might never be seen or constantly updating those SWF files which store your images. In addition to loading JPEGs at runtime, Flash Player 6 also has the ability to load MP3s at runtime. But wait, there's more. Once you have loaded an MP3 into your Flash movie, you also have access to the MP3's ID3 tag, which stores information like, song name, artist, album, year, comments, track, genre, etc.

THE REALLY BIG ONE: VIDEO

One of the most exciting new features in Flash MX is its support for video—yes, video! Imagine the possibilities!

Macromedia has teamed up with Sorenson Media to incorporate a video codec specifically for Flash MX and Flash Player 6. What this means is that you can now import any standard video file supported by QuickTime or Windows Media Player (including MPEG, DV, MOV, and AVI) and deliver your video within your Flash movie, knowing that users will be able to see the video without having to download an additional plug-in (assuming they've already downloaded Flash Player 6). What's even better is that you can manipulate your video clip in your Flash movie just like you would a regular movie clip—skewing, rotating, scaling, or even masking it—all while the video is playing! Pretty cool, huh?

ACCESSIBILITY FOR SCREEN READERS PLUS NAMED ANCHORS

An important topic of discussion on the Internet in recent months has been accessibility—making content available to people with disabilities. While assistive technologies like screen readers can interpret and read text on a regular HTML page, screen readers have traditionally had problems interpreting the content in a Flash movie.

Flash MX now has the ability to make your content accessible to screen readers by allowing you to give user-friendly names and descriptions to various objects on the stage. This is similar to entering ALT tags to images in your HTML page. If you're in a situation where you need to make your content accessible to people who rely on text readers, then you need not shy away from Flash anymore.

And what about "Back" button problems? Browsing the Internet has trained us all to rely on our browser's Back button whenever we find ourselves somewhere on a site where we don't want to be.

Don't feel guilty, we all use it—and we're supposed to use it. Who are we, as developers of Flash sites, to be "retraining" users to *not* use their Back buttons when (and only when) they're visiting our websites? Users could be happily clicking around your site for fifteen minutes, but as soon they click on the browser's Back button, they're not in your site any more.

Well, Flash MX now gives us the ability to code our Flash movies to adhere to the browser's Back and Forward buttons. Say bye-bye to Back button problems.

MULTIPLE LANGUAGE SUPPORT AND DEVELOPING FOR PDA'S

For any of you working on projects with non-western languages, you'll be happy to know that Flash MX now supports Unicode characters. For example, with the appropriate fonts installed, users can view Japanese, Chinese, Korean and Western characters all at the same time, in the same movie. But language support isn't the only area Macromedia has expanded.

You've built up a fairly marketable skill set when it comes to Flash and you can push out sites and CD-ROMs like there's no tomorrow. But have you ever wished you could use your skills to develop in Flash for something other than websites and CD-ROMs? Have you ever thought about developing for PDAs (Personal Digital Assistants)?

Well, now you can. Many of today's PDAs can view Macromedia Flash content, and the number of PDAs that can do this is growing at an amazing rate. Currently, the list of enabled mobile devices includes Pocket PC's, the Nokia 9200 communicator series and HP's IPAQ. As more PDAs start supporting Flash content and clients start relying more on their PDAs for business needs, you may find yourself in the position of being able to offer your clients a PDA-Flash solution. How cool is that?

RICH INTERNET APPLICATIONS

On Macromedia's website there's a lot of talk about Rich Internet Applications when Flash MX is discussed. I thought it would make sense if I touched on this concept just a little bit here.

Rich Internet Applications is a term that Macromedia gives to what it believes is the next generation of websites. They are web applications that combine the richness of desktop applications (e.g. video clips, audio tracks, engaging interactivity) with the ease of web deployment (e.g. upload the files to your server and now all your customers have access to it).

If you look at general usage on the Internet today, you find that people are spending less time surfing and more time getting things done—doing their banking, their shopping, looking for a job, or even booking a hotel reservation. Macromedia's view is that rich Internet applications not only deliver a better user experience but also reduce development time and testing time, and thus provide a better return on investment. Of course, the product that allows you to accomplish all this is Flash MX.

REAL-TIME VIDEO CONFERENCING

If you've already installed Flash Player 6 and you don't know about this, then I highly recommend trying it—it's quite the eye opener.

Visit any Flash site out there—it doesn't matter which one—and option-click on the Flash site somewhere (right-click if you're on a PC). See the "Settings..." option? Select it.

Ta-da! Guess what? Flash Player 6 has the ability to communicate with both your microphone and your web cam!

Now before you think about putting together a Flash site to spy on your users, it's important to know that the user always has the power to either allow or deny the player access to the microphone and camera. It's a security thing and it totally makes sense.

However, this technology opens up so many possibilities. Imagine a customer support site where the customer support person comes on the screen and talks to you in real-time. Imagine having a two-way or even an n-way video chat where all you and your friends need is a browser with Flash Player 6 installed. To make any of these scenarios happen, you will need Flash MX to do the client side front end, and Macromedia's Flash Communication Server to do the back-end hosting.

SO WHO HAS FLASH PLAYER 6?

Let's face it. Flash MX could be the greatest product in the world, but if no one has Flash Player 6 installed, no one is going to be able to view your site.

Well, it's a good thing that this helpful piece of information is being monitored and tracked and can be found on Macromedia's website. The NPD Group (an independent research company, not affiliated with Macromedia) conducts a study every three months to determine (among other things) the penetration of different players around the world. When Macromedia launched Flash 5 in August 2000, it only took a year for the penetration of its Flash Player 5 to reach about 80% of all web browsers. In other words, in one year

80% of all Internet users could view Flash 5 content without being prompted to download the player. That fact alone is pretty amazing when you think about it.

Now consider this: Macromedia Flash MX and Flash Player 6 were launched in March, 2002, and the NPD Group conducted another study in June, 2002. The results were quite amazing.

Only three months after the launch, the percentage of Internet users who could view Flash MX content without being prompted to download the player had already reached an astonishing 35.3% in Canada, 30.2% in the United States, 36.6% in Asia and a whopping 37.0% in Europe! So, already as of June 2002, at least one-third of all Internet users could view websites created with Flash MX. Pretty amazing, eh? At this rate, just imagine how many people will be able to view your Flash MX site three months or even six months from now.

SHOULD YOU UPGRADE?

Macromedia Flash MX opens the door to solutions that weren't previously possible in Flash 5. With new features like support for video, components, the ability to load JPEGs and MP3s at run time, accessibility support, multi-lingual support, just to name a few, the possibilities are really mindboggling.

So, is it worth upgrading to MX?

Most definitely, yes. Over the next few months as developers and designers start playing around with the magic wand that they now have in their hands, keep an eye out for those cool, how-did-they-do-that, what-do-you-mean-my-hotel-reservation-is-done-already sites that take advantage of the new capabilities of Flash MX.

I've already got my magic wand. When are you going to get yours? 🪄

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MACROMEDIA FLASH MX

System Requirements

Authoring

WINDOWS

- 200 MHz Intel Pentium processor
- Windows 98, SE, Me, NT4, 2000 or XP
- 64 MB of free available system RAM (128 MB recommended), 85 MB of available disk space
- 1024 x 768, 16-bit color display or better

MACINTOSH

- Mac OS 9.1 and higher, or OS X 10.1 and higher
- 64 MB of free available system RAM (128 MB recommended), 85 MB of available disk space
- 1024 x 768, 16-bit color display or better

Playback

WINDOWS 95/98/Me — Internet Explorer 4.0 or later, Netscape Navigator 4 or later, Netscape 6.2 or later, with standard install defaults, AOL 7 and Opera 6

Windows NT/2000/XP or later — Internet Explorer 4.0 or later, Netscape Navigator 4 or later, Netscape 6.2 or later, with standard install defaults, CompuServe 7 (2000 & XP only), AOL 7 and Opera 6

MACINTOSH System 8.6/9.0/9.1/9.2 — Netscape plug-in works with Netscape 4.5 or later, Netscape 6.2 or later, Microsoft Internet Explorer 5.0 or later, and Opera 5 OS X 10.1 or later — Netscape plug-in works with Netscape 6.2 or later, Microsoft Internet Explorer 5.1 or later, and Opera 5

Pricing

CDN\$739.99/US\$499

Studio MX package CDN\$1159.99/US\$799 (Flash plus Dreamweaver, Fireworks, FreeHand and Coldfusion)

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