

Director 8 (the greatest thing since Director 7)

A presentation to the "Multimedia | Internet Developers Group" of Portland by Phillip Kerman, Darrel Plant, and Brad Smith.

Director Overview:

Director can take almost any media-type and animate it... synchronize it... and make it interactive. It's essentially a tool to assemble media which has been produced elsewhere (audio, pictures, and text for example) and deliver it on the web or CD. Director has *some* editing and touch-up controls (like a text editor), but it's primarily the framework that holds everything together.

Director's "movie/theater" metaphor helps new users. There's a "cast" of media elements which can be put on "stage" then animated over time (following the "score"). There are even "scripts" containing instructions for each cast member to follow.

Additionally, Director contains many familiar animation tools (based on traditional cell animation) like "onion skinning", "tweening", and "keyframes".

More than just animation, Director has elaborate programming capabilities (through its "Lingo" scripting language) and extensibility to create true multimedia "tools". Macromedia describes Director content as "magnetic" going beyond the "sticky" concept (where websites retain visitors) to something more "viral" where people are drawn __ websites because the content is so compelling.

Director 8's New Interface and New Features:

Authoring Efficiency:

The new Property Inspector lets you view and modify any property of any object. Instead of accessing member properties via the cast and sprite properties via the stage for example... now you can simply keep the property inspector open when selecting objects and the appropriate properties become visible. You can select several items and the properties common to all the objects are available (following very intuitive and standard conventions). Additionally, the default view mode (familiar to Director users) can be changed to "list view" which is similar to many other applications like Visual Basic or Access.

Guides can be placed anywhere (not just a grid anymore) and objects can "snap" to the guide in a *very* intuitive fashion (not unlike Flash's "assistant").

Locked Sprites (It's about time!)

Zoom-able stage. Still a pixel based environment... at least now you don't need to have pixel accurate vision. Related to stage zooming is the fact that authors can now see sprites that have been moved off stage!

New Cast View optionally gives authors a much more efficient view of their cast—similar to Windows Explorer's sorting capabilities (like sort by "date modified" or "name" etc.). Additionally, members have a "comments" property which aids in sorting.

Features:

Linked scripts allow authors to truly separate "code from data". That is, scripts can be external to the Director file... actually stored in simple text files which can reside anywhere outside the Director piece... even on an URL.

Multiple paths in vector shapes. It's not quite the next Illustrator or Freehand yet, but at least you can have more than one "path" (object) in each vector shape member.

Super Sound Power is not a new feature—but the new audio performance and features make Director a true multimedia tool. You can preload sounds for instant playback and manipulate them with live mixing, panning, seeking, and setting loop points dynamically.

The Publish metaphor from other Macromedia tools is now used for delivering Director "Shockwave" files to the web. One new feature related to Shockwave includes the ability for Shockwave files to scale to any browser window size! Also, you can specify JPG and MP3 compression settings for your graphic and audio assets. Macromedia even included a generic "loader" movie to placate your users while they wait for a download. Finally, the HTML produced by the publish command is "open" meaning you can modify the HTML templates used or create your own customized versions.

Director 8's New Behaviors and New Lingo:

"Behaviors" are any script you attach to an object in Director—so most users will likely write their own behaviors. However it's possible to write very sophisticated behaviors which can be applied by almost anyone and the novice author remains insulated from the complexity. There is a library of ready-made behaviors that ships with Director (and these are probably the best examples from which to learn). Darrel Plant authored many of these and he'll demonstrate some of the more useful and interesting behaviors in this presentation.

Many of the new behaviors use (and exploit) some of the new lingo functionality. Most notably the sound controls (mentioned above) and runtime imaging controls. The "Sprite Transition" behaviors, for example, allow transitions to be applied to individual sprites (instead of the whole screen). The "imaging lingo" used provides a pixel level control (through programming) to create sophisticated effects which add to filesize negligibly (making them ideal for web delivered projects).

Price and Availability: (Sold only as "Studio" with Fireworks 3, Multi-user Server 2, and a sound editor)

Full Package: \$999

Upgrade from version 7: \$399 per platform or \$699 for both.

Upgrade from 5 or 6 or 6.5: \$499 per platform.

CD & Printed Manual \$10 plus shipping.

Downloadable version available now.

Boxed version of Director 8 available at the end of March 2000.

Shockwave 8 beta available now.

Shockwave 8 and ShockMachine 8 available at the end of March 2000.

D vs. F

A common question is: “What’s the difference between Director and Flash?”

Without making this into a showdown, here’s a discussion of the key differences.

Aspect	Flash 4	Director 8
<p>Vector or Bitmap Graphics. Computer images are stored in one of two primary methods. 1) Vector graphics (like Illustrator files or Flash files) contain the mathematical instructions to re-draw the image on screen. 2) Bitmapped images (Pict, BMP, or JPG) contain the color information for each pixel. Vector graphic files are very small (they download quickly), they can “scale” to any size (it’s just math after all), however they take longer to appear on screen. Bitmapped files are larger but display on screen very fast. However, scaling a bitmap usually affects quality (like blowing up a photograph, it can get grainy).</p>	<p>Flash is ideally suited as a vector-only tool. Although bitmapped graphics <i>can</i> be included in Flash—it makes sense to only do so when absolutely necessary (like if you’re including a photographic image).</p>	<p>Director excels in the display and management of bitmapped graphics. However, Director supports inclusion of vector graphics in several forms including its own rudimentary “vector shapes” as well as Flash files (which have been exported as “.swf”). Using vector graphics in Director affects performance slightly.</p>
<p>Drawing & Painting tools Though neither tool is a replacement for Photoshop, Illustrator, or Freehand—they both have some drawing capabilities.</p>	<p>You can create drawings inside Flash. Though it may not be ideal, it’s capable of creating all the content used in your project.</p>	<p>Director has a “paint” window and other “creation” windows—though they’re best suited for editing content already created elsewhere. So, Director is more of an assembly tool rather than a creation tool.</p>
<p>Animation tools Conventional animation has evolved over time. Animation software now incorporates such tools as “onion skinning”, “tweening”, and “synch points”.</p>	<p>Flash is arguably a better interface for animation. Unique to Flash is its “shape tween” or morphing tool.</p>	<p>Director includes decent animation tools. Particular to Director is its ability to retain perfect synchronization (for audio especially).</p>
<p>Programming abilities Programming is the key difference between a presentation which the user passively watches and an experience with which the user interacts.</p>	<p>Flash has some simple “lite-programming” features (like “goTo”). The advanced features of Flash 4’s “Action Script” language are powerful—however, since there are only about 20 functions, this seemingly simple language requires a very resourceful programmer to do anything complicated. So, its simplicity actually makes it difficult.</p>	<p>Director can be used without any significant programming (for just animations). However, with Director’s “Lingo” language you can add a little or <u>a lot</u> to the power of Director... so Director can create true software tools. Director’s “Behavior” interface can insulate the novice from getting their hands dirty programming—and allows for programmers to flex their muscles.</p>
<p>The meaning of life A tool’s “place” in the world is important. Is its sole purpose to connect people to the internet (like a browser)? It may seem obvious that <u>everything</u> has to do with the internet—but to be more specific Flash and Director’s place in the world can be compared.</p> <p>One basic concept: <u>Either</u> tool can be delivered in their own format. However, only Flash “SWF” can be considered a “file format” (like JPG or DOC) because there’s such general support—thus only SWF files can be used inside Director. (Not the other way, that is Director files cannot be used within Flash.)</p>	<p>Flash was born on the web—and for the most part, that’s the only place to use it (in a browser). You <i>can</i> create stand-alone EXEs with Flash—though there are no significant advantages to do so. One important exception is the concept of Flash “SWFs” being a standard file format that exists “everywhere”—you can play Flash files on palm-devices and someday even in your smart internet-connected microwave.</p> <p>The only ways Flash can “talk” (or listen) to the rest of the world is through JavaScript or CGI Form GET and POST (which is very standard). (Also, when Flash is inside Director it can “talk” to Director in a similar proprietary format.)</p>	<p>Director can be delivered as a stand-alone EXE or as a “Shockwave” file (viewable through the Shockwave player or ShockMachine). There are significant differences between what you can do with a stand-alone (that is, almost anything) and a “shocked” file (everything except malicious things). Additionally, Director can “talk” or listen to other applications, other files... and other online users in many and significant ways. Sometimes it requires a third-party product—but the fact there are so many such products available speaks well to the global adoption of Director. For example, Director can talk to an <i>Access</i> database... or send physical feedback to a “force feedback” joystick.</p>