

Integrating Digital and Traditional Illustration in Flash

Cassio Lynn, CMI, Senior Medical Illustrator, *JAMA*

GNSI Bar Harbor, ME 2:30 PM Aug 9, 2005



Type of presentation: Lecture/Slide Show

Level: Beginner

Goal/purpose/theme: This presentation is designed to serve as an overview showing the capabilities of Flash as a means to address challenges of repurposing and integrating traditional and digital illustration and animation.

Brief description

Cassio Lynn will take you on a tour of some digital techniques in Macromedia Flash that can be employed to create web-optimized illustrations, interface elements, and engaging information graphics. Using typical examples of challenges and problems that arise during the course of building interactive presentations, Cassio will demonstrate creating, repurposing, and integrating both traditional (sketches, watercolors) and digital (raster and vector) illustrations and graphics into a web-ready format. He will highlight the practical application of Flash's most salient features, and comment on related features in Photoshop and Illustrator. Among the techniques covered will be importing/exporting/optimizing graphics and typography, digital drawing, creating interactivity, building interface elements, and managing projects. Time will be allotted for questions.

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Flash Overview

Who makes Flash?

Macromedia, formed by the merger of 3 companies: MacroMind (a multimedia software company), ParaComp (a 3D software company), and Authorware (an educational and teaching tool software company). Pending acquisition by Adobe.

What was Flash intended for?

creating rich interactive experiences for web delivery

What has Flash evolved into now?

animation (in the form of short and full length films), rich-media advertising (music, video), integration with databases, training tools, "rich-media internet applications"

Who can use and view Flash content?

- extremely large percentage of web users (as of August 2005, 98.3% of web users (560 million) surveyed worldwide have the capability to view Flash content (flash plugin is preinstalled in browser)

Why is it useful to us as illustrators and communicators?

- ability to repurpose previously created material
- ability to incorporate a wide variety of media
- ability to create interactivity and feedback, engages the user and enhances the learning experience
- ability to deliver the material easily

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Basic terms

Movie The native flash (.fla) file.

Timeline Where the parts of the Flash movie are organized and arranged in depth (layers) and across time. Made up of keyframes, or important frames where changes happen. They can be identified by their frame number or by adding frame labels.

Two types of timelines

Main timeline (can be divided into scenes)

Movie clip timelines

Movements in timelines can be linear or nonlinear

Linear moves according to frame rate (number of frames per second, fps)

Nonlinear moves according to frame numbers or frame labels.

Symbols A type of object with 3 different behaviors. Stored in the Library.

Movie clip behavior A container, or a holder. Has its own internal timeline.

Button behavior A typical button like you're used to on the web with mouseUp, MouseOver, mouseDown, and mouseHit states. You can tie events to the button, eg navigation.

Graphic behavior Any shape or picture image

Instance A single version of the symbol. Many instances can be made from one symbol. When a change is made to the symbol, all instances are updated with that change. Likewise, you can make a change to the instances' shape, color, size without affecting the original symbol. Instances also decrease load time because only the first instance of a symbol on the stage has to be loaded.

Library Where objects are that can be used in the movie are stored, such as symbols that are created and any image, video, and audio files that are imported.

Tweening Term that refers to animation ("in-betweening"). The two types of tweening are motion and shape. Both can also include tweened changes in properties of the object over time, such as color or alpha transparency.

ActionScript Programming/scripting language, much like JavaScript, used to create more complex interactivity. Based on a syntax, an accepted manner of phrasing commands. ActionScript is an object-oriented language.

Objects: like nouns : things (visible items such as an instance of a graphic symbol, or more abstract concepts like the date, data input by the user, keyboard detection)

Properties: like adjectives : characteristics that define an object (width, height, x,y location)

Methods: like verbs: things that the objects can do

Luckily for those of us who are not coders or code-minded (without some degree of enduring late nightbook-tutorials), MX has included a very straightforward way to interact (or not) with the code. They've provided a Behaviors panel to handle basic interactivity. The Actions panel also contains prewritten code that you can select out of menus and apply.

Components Premade movie clips with changeable properties and parameters that can be changed to suit your needs. There are 3 types: Data, Media, UI (User Interface).

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Presentation Overview

Super brief history of Flash

Getting it in, getting it out

- Importing/exporting
 - raster
 - vectorizing
 - vector
 - drawing

Comp-ing, changes, and updates

- Dealing with varying levels of completion of art and text used (partially rendered, not in color, etc)
- Accommodating indecision (yes, yours too, not only your client)
- Understanding symbols and instances

Maximizing your desktop real estate

Creating interactivity

- Making a movie clip
- Making simple buttons from drawn shape
- Timeline movements
 - Going to another frame in the same timeline
 - Controlling a movie clip's timeline (eg keying a button to a movie clip)
 - Going from one scene to another

Creating animation

- Motion tweening
- Shape tweening



File Format Facts

Importing Images

GIF, JPG, PNG, TIF, EPS, AI, PDF, SWF, TGA, BMP, FreeHand, AutoCAD DXF, Silicon Graphics, others.

Importing Audio

AIFF, MP3, WAV, Sun AU

Importing Video

MPEG, QuickTime, others.

Publishing

Standalone Projectors: Mac and Windows (.exe), Flash (.swf), HTML (.html), QuickTime (.mov)

Exporting

'Movie'

Flash Movie (.swf), QuickTime, Animated GIF, PICT/EPS/AI/JPG/GIF/PNG sequences

'Image'

SWF, PICT, EPS 3.0, AI, AutoCAD DXF, JPG, GIF, PNG

Some Features in Flash MX 2004

- Automated common tasks as menu options (eg timeline effects)
- Short cuts for incorporating actionscript (behaviors)
- More prebuilt/compiled interface elements (components)
- Reorganization of actionscript menus, removal of normal vs expert mode, pinning
- More context sensitive help
- Can download new behaviors from Macromedia Exchange
- Full spell check/search and replace
- CSS support
- Ability to reuse and save Publish Settings
- History Panel
- Translation strings to choose publishing in multiple languages
- Support for 3rd part extensions eg Swish, Zoomify, Swift 3D
- Big time data integration



Online Resources

Training, tutorial, community

<http://www.macromedia.com/software/flash/>
<http://flashkit.com/>
<http://www.moock.org/>
<http://www.flashfruit.com/>
<http://www.friendsofed.com/>
<http://www.ultrashock.com/>
<http://www.lynda.com>
<http://www.were-here.com>

Inspiration, experimentation, and applied techniques

<http://www.macromedia.com/showcase/>
<http://www.flashforward2004.com> [click on the 2003 NYC Flash site and then go to Flash Film Festival>Finalists]
<http://www.shockwave.com>
<http://www.becominghuman.org/>
<http://www.nationalgeographic.com/channel/highspeed/index.html> [go to Interactives]
<http://www.24-7media.de/>
<http://www.sydneyoperahouse.com/> [go to Tourism>Virtual Tour]
<http://www.hillmancurtis.com>
<http://www.parentsplace.com/first9months/main.html>
<http://www.hopkins-gi.org/> [go to any of the Digestive Disease Library pages; linka to multimedia on many pages]
<http://www.nytimes.com/pages/multimedia/index.html>
<http://www.madeinmunich.com/>
<http://www.amivitale.com/>
<http://www.nirinc.com>
<http://www.andyfoulds.co.uk> [has a lot of good links, but site seems to be under revision.]
<http://www.1800contacts.com/vision101/>
<http://www.gorillaz.com/>
<http://www.whitehouseanimationinc.com/>
<http://oohbity.com/hh2Window.html>
<http://www.esao.net/>
<http://www.jmefx.com/>
<http://surface.yugop.com/>
<http://www.pitaru.com/>
<http://www.presstube.com/>
<http://www.once-upon-a-forest.com/>
<http://www.vectorpark.com/>
<http://www.qubogas.com/>
<http://www.giantoctopus.com>
<http://www.tomasramos.com>
<http://trollback.com>