

Advanced Director: Examples from Real Projects

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Overview:

Director is capable of fun multimedia fluff, but it can do much more. The best products created in Director embrace technology in a way that leaves the user compelled by the message—not impressed by multimedia. Complicated Director projects should only be difficult to produce—not difficult to use.

In the advanced Director projects demonstrated you'll see:

- how they were designed to be usable
- the way advanced technologies made them efficient
- and, you'll see the basic structure upon which the programming was developed.

Demonstration:

BeastCDBoysPlayer

This self-promotion project incorporates an Audio CD with a Director program. Director "talks" to the CD by telling the CD what track to play. Also, Director continually asks the CD "*what time is it?*" (within the current track) and, based on that information, displays the lyrics in perfect synchronization.

The process of gathering all the synch points required I create a data-gathering Director program which let me click every time I wanted the lyrics to change and it effectively recorded my clicks. Think of the finished program as a player piano. The data-gathering version was like I was playing a special piano which would punch holes in the sheet as I played.

Although I didn't get to meet the Beastie Boys (much less get paid for this project), I did use the same technology in the following project.

HP 2100

Produced by Waggener Edstrom, this project is largely a traditional sales support tool without a tremendous amount of programming. What sets this project apart, however, is the effective graphic layout. Making it look nice on 640x480 256Color screens made it doubly hard.

The introduction, however, uses a lot of programming. In retrospect the need for perfect synchronization might have been better served with a large QuickTime video. However, not only would this have required a previous install by the users but it probably wouldn't have performed as well on low end machines.

Just like the Beastie Boys project (above), I made a special version which let me move the text block faster or slower as I changed the mouse location. In addition, this special version "recorded" the location of the text every 1/60 of a second. In the final playback mode it tries to position the text 60 times a second. (Actually, if it ever finds itself lagging it will automatically catch up by moving the text in bigger steps—this means slow machines will remain synchronized though it will look chunkier.)

SideEffects

This thesis project designed by Nathan Lucas is an art creation tool. Users can layout images as they wish. They can save simple text files containing the coordinates of each image. These text files can be loaded back into the Director software (and their art is restored). Additionally users can send these text files to a website where others can load the text directly back into their copy of SideEffects (provided they're online).

This was a great case of a "browserless web application"—that is, there's web connectivity (to look at others' creations) but no browser (it's all in Director). Although this was a personal project (no budget), I've used the same technology on "real projects" (including the Catalog Builders below) and for technical articles I've written.

Catalog Builders

This series of projects produced by Oswego Group provide sales representatives with a simple method to create customized catalogs. The salesperson can (in advance or with their client) select from a large database of products, layout each page as they wish, enter price and quantity information in a spreadsheet section, even add post-it notes, then save and optionally print their creation.

The images used on screen have a resolution of only 72dpi. Although the printout does more than simply "print screen", if the same 72 dpi images are used they will print at 72 dpi (which, while looking fine on screen, look bad on paper). The third-party Xtra we used called "Print O Matic" can print high-resolution EPS images. The only catch is the EPS print option requires connection to a PostScript printer. As most sales reps don't have such a printer, they have three options: print it low res, save the catalog (as a simple text file) and go to service bureau (like Kinkos) or, provided they're online, upload the text file directly from the Director program to Oswego Group's FTP server. Oswego will restore and print the text file (from the same Director program) while connected to a high quality PostScript printer.

Museum Guide

In conjunction with The Whitney Museum of American Art's "American Century Exhibit" I programmed this Director piece to run on a "Pad PC" (a very small laptop with just a screen—no flip top, no keyboard, just a touch screen). The context is very important. For example, there was no need for "roll over" effects as there was no need for the cursor either (it was a touch screen). Also, since this was a test project, I made many of the options changeable by the museum staff. For instance the default for closed captioning is "on". Originally, some thought this should default to the "off" position. To change the default, you simply need to change an entry in an "ini" file. That way a Director expert didn't need to be present to change the options.

Additionally, the project exhibits synchronized narration and images. A very simple interface which actually took a lot of work. It's easy to figure out for a wide audience. There's always a "logical next button" to press and that starts to glow during inactivity. Also, we had to encourage viewers to look at the artwork and came up with creative ways to solve this challenge too.

Resources:

Articles:

BeastCDBoysPlayer article:

www.teleport.com/~phillip/director/audio_cds.pdf

Flash Programming:

www.teleport.com/~phillip/flash/MUJ_88_FlashProgramming.pdf

Buddy API:

www.teleport.com/~phillip/director/buddy_api.pdf

Local Macromedia User Groups:

Multimedia | Internet Developers Group www.oregon.org

Portland Oregon Developers Group www.refractpoint.com/paug

Websites:

Director Web www.mcli.dist.maricopa.edu/director/

Director Online Users Group www.director-online.com

UpdateStage www.updatestage.com

Conferences:

27-29 September

Director Summit 2000 www.directorsummit2000.com/ds2k/

10-12 April 2001

Macromedia User Conference (UCON)

www.macromedia.com/macromedia/events/ucon2001/

About Phillip Kerman:

Phillip Kerman splits his time between doing projects and showing others how. He writes articles, prepares and delivers courses, as well as presents at international conferences—including the last four Macromedia Users Conferences and FlashForward 2000 in San Francisco and New York.

Phillip also gets his hands dirty programming. He programmed the Flash site M3 snowboards (www.m-three.com) for Paris France, Inc. which is included in both "Communication Arts" Magazine's Interactive Design Annual and "The British Design & Art Direction" Annual for 2000. Currently Phillip is writing the book "SAMS Teach Yourself Flash in 24 Hours" due out in September.

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