

# Newsletter: Using Computers in Chemical Education Fall 2004

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Chair : Don Rosenthal [Who we are and what we do.](#)



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[Current Edition](#)

Brian Pankuch  
Editor

Editor

Newsletter: Using Computers in Chemical Education  
<http://www.eclipse.net/~pankuch/Newsletter/NewsHP/HPNewsCCE.html>

[Brian Pankuch](#)

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\$1199, \$499 academic.

Contributing Editor

Note: In this review Director terms such as Stage, Score are capitalized.

[Donald Rosenthal](#)

## What is Director?

Macromedia Director is a very powerful tool that allows you to combine and work with many types of multimedia in the same project. It is able to combine images, text, movies, animation, DVD, sound, Shockwave, Flash, web links together and allow all the components to interact in your multimedia programs. You can create your own project such as an animation, and combine just about any other type of media, and animate that media. The latest addition is DVD.

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## What's new in Director?

[Scott Van Bramer](#)

The Director MX 2004 has a new interface that is similar to other Macromedia products, Flash, Dreamweaver, and Fireworks, so if you are using one of these then the screen should look familiar. You build your project on the Stage, separate components whether text, or any other media are Sprites in the Stage and the Score window, but a cast member in the Cast window. A single cast member, such as a representation on an atom, can become as many Sprites as you need on the Stage. On the stage they can be animated in many ways, sizes, colors, textures, path-followed, etc. changed individually or en mass and as a function of time and position. Director is a very versatile tool.

Many of the former individual windows, over 24, used to control the various media for specialized work can now be combined in pop open panels similar to the formatting palette in Microsoft Word. You can customize your favorite setup of panels and windows. For instance, the Score window, which shows all the pieces of your project and their relationship to each other, is generally big if you want to see all the components, and I prefer to have it taking up most of my second monitor screen. This allows me to see the overall structure of the project while concentrating on a specific portion, and allows my main screen to be used for the actual work.

**You can import Flash movies** and use them directly or edit them by double clicking the

Flash file and opening Flash. When you finish editing, Director imports the finished Flash file. You can also import QuickTime movies, DVD video, pictures, text, sound, RealMedia, color palettes, bitmaps, Shockwave, etc. All can be animated as indicated above, and controlled by Director's script language Lingo, or new to Director by JavaScript. Physical phenomena such as the [Photoelectric Effect](#) and [Tides](#) can be simulated. With Director you can use the animated simulation in lecture to better explain an area, experiment, by exploring various aspects of the phenomena. Making the simulations available on local nets, and WWW allows students to study further and review for tests. Note the Photoelectric Effect simulation has a link to an interactive online test for students to check their understanding, and a text explanation to explain what is going on and ask questions for further thought and discussion. Lingo scripts allow a user to control the speed, go back, stop, or change some aspects of the simulation.

Director now has the ability to give Sprites and channels custom names, with absolute Sprite references no longer necessary. This is an advantage since you may want to move Sprites around in the course of working with your project. I think this will also be helpful when you go back to a project you haven't worked on for awhile. The names will make it easier to pick up where you left off. Moving a Sprite to the first channel in the Score window makes it the front Sprite on the Stage. So nothing can eclipse it. If you move a Sprite with a number it is an absolute reference in a script so the script may not work. By naming the Sprite you can move it and the script works the same. You can freely drag Sprites anywhere in the Score without disrupting your code, but it can change their appearance on the screen.



*You can make your Director movies accessible by adding behaviors or writing custom scripts.* Movies can be made make accessible in three ways by adding behaviors for: keyboard navigation, text-to-speech, or captioning. The behaviors are added with drag-and-drop procedures from the Director Library palette that includes an Accessibility section that contains behaviors for enabling each capability.

The above is pretty much a synopsis of what you can do to make your project accessible. Let me give you some idea of what I actually had to do to learn a bit about the process. First check the manuals, oops can't do that since manuals are no longer supplied. The manual is on the CD as a PDF. I found Accessibility and one of the steps directs you to add the Speech Xtra to the movie's Xtra extensions list. There is a set of six steps on how to do this and it doesn't work. Check the Director CD and the Director package on my computer using Find and the Speech Xtra isn't there. I still haven't found it.

I did find an online tutorial that showed the basics of what to do, but these steps were contradicted by popup directions as I was actually doing it. Neither worked on my system. I decided to look in the tutorial folder included, and nothing on an Accessibility Tutorial was there. Later I happened to be looking in the Goodies folder and there was an Accessibility Tutorial, which indicates a third way of adding Accessibility. This seems to work, and it has an example program to experiment with. My point is that once you learn how to do something in Director it is much easier than writing the code yourself, but finding out how to do it can be time consuming.

A note to Mac users: If you purchase the Director CD it will not work if you have the latest version of OS X (10.3.5 at the moment). The Director version downloaded from Macromedia will work. I've been impressed in how difficult it has been to get this package working, it is not well designed or easy to find or get help. There is a big increase in the academic price, no hard copy manuals, an install CD that doesn't work, and a lot of new features that are poorly implemented. I've read of similar difficulties with the PC version.

Conclusion: I remain a fan of Director, it is a useful, powerful program. This latest package and its implementation is poorly done, requiring quite a bit of additional effort by the user due to poor directions, documentation, and missing components.

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