



Brian Pankuch, Editor
Pankuch@eclipse.net

Possible change:

We've been discussing switching from a printed Newsletter to only electronic on the Web. If you have any ideas pro or con send comments to me at pankuch@eclipse.net.

I've taken the original structure, ungrouped it, selected and duplicated a CH₂, pasted it in so I've added a CH₂, and thickened the bonds in the backbone.

In the above figure the new structure has been selected (use your mouse to draw a selection rectangle around the entire molecule) and regroup clicked on. The resulting structure may be moved, stretched, shrunk etc. You can ungroup move, delete, copy and paste parts and group together as often as needed.

Personally I find this easier if I don't have the drawing program up and running.

Using Multimedia II - Setting the Stage
Harry E. Pence
SUNY Oneonta, Oneonta, NY
pencehe@oneonta.edu

The topics of room design, equipment selection, and teacher training are too complex for a short presentation of this type, and fortunately administrators are normally willing to dedicate serious resources to these decisions. Unfortunately, there are some other basic requirements that are not very glamorous but are equally essential to support a computer-based lecture. These often-overlooked topics include well-designed lighting, good technical support, and an assurance that the teaching space will continue to be available from semester to semester. The absence of any of these can create a potential disaster, despite a well planned facility.

Considering how much money is being spent on equipment for multimedia teaching, it is amazing how often I encounter rooms where the lighting is inadequate. In one case, I visited a campus to give a talk and was assured that the lighting in the room where I was going to speak was adjustable. It was; I could either turn the lights off or on. Neither level was satisfactory.

In order to give a lecture from a computer, an intermediate light level is necessary, that is dim enough to make the projected images clearly visible but bright enough so that the audience doesn't fall sleep. With modern equipment, a fully darkened room is no longer necessary for computer projection. On the other hand, even with carefully designed frames, normal room lighting is often too bright. Like the story of Goldilocks and the Three Bears, an

intermediate level is just right! A dimmer switch is ideal option, but with fluorescent lights, it is more common to set the different banks of lights on several switches, so that the area over the screen can be dimmed, while some lights in the back remain on. These options may not be cheap, but saving money here may make a high-priced "smart" classroom into a white elephant.

Speaking of elephants, the remote-controlled mouse is an inexpensive way to improve computerized presentations. To give a good presentation, you should get close to the students and look directly at them as much as possible. The goal of computer lectures is not to lecture to the computer nor to hide behind a massive (and well named) bunker where the technology is located. The remote mouse lets the speaker move among the audience while still maintaining control of the presentation. The cheapest available model is usually more than adequate. Even highly experienced users may have trouble using a remote mouse to manipulate the cursor, so the only essential feature is the capability to move the frames forward and backward.

Technology support is another crucial area that is often overlooked. Several years ago our campus invited a consultant to help with our technology planning. At one point, I asked her if we shouldn't plan to have a support person available within ten minutes if there was a problem in a class. To my surprise, she responded, "Absolutely not!" Then she added, "Ten minutes is an eternity when you're standing in front of a class with nonfunctional equipment." Having been in that situation several times, I couldn't agree with her more. Help must be available very rapidly at any time that classes are being taught that use technology.

Support people are expensive, and so this is another tempting area for saving money. This is a false economy. Neither is it reasonable to assume that the individual faculty member should be responsible for emergency maintenance. Some colleagues may choose to do so, but the great majority of teachers don't wish to have this burden any more than they want to be responsible for the heating plant or the electric power. Support for evening classes is often a particularly sticky point. Some faculty may feel that this support is not necessary, but even the most experienced computer user should think carefully before accepting this extra responsibility.

Perhaps the saddest situation I have encountered in talking to early adopters of technology was a woman who had spent hundreds of hours developing a

course based on presentation software, and then was told that no room would be available for her to teach the course. On most campuses, there is a real effort to build high-tech classrooms as rapidly as possible, but this is often more than offset by the even greater increase in the number of faculty who plan to use these rooms. Not too many years ago, when there were only a few early adopters who had to be satisfied, an informal commitment that a classroom would be provided was more than adequate. As the campus needs become more extensive and complex, it may well be a good idea to ask from a more formal commitment before investing so much of your time.

Next installment: Catching the students' eyes.

Changes in the CCCE Membership
Harry E. Pence
SUNY Oneonta, Oneonta, NY
pencehe@oneonta.edu

It is always regrettable when members of the Committee are no longer able to continue, but that is more true than usual this year. The three members who have retired have not simply made a contribution to the work of this Committee but have truly had a important impact on the teaching of chemistry. Joe Casanova and Stan Smith were among the pathfinders in the use of computer technologies for teaching chemistry. Marco Molinaro has not been working on instructional technology as long as Joe and Stan, but his contributions have still been significant. We have all enjoyed working with them and wish them the best of luck in their future activities.

The new members added to the Committee are Cathy Middlecamp from the University of Wisconsin at Madison (chmiddle@facstaff.wisc.edu) and Mike Sanger from the University of Northern Iowa (sanger@cobra.uni.edu). I'm sure that the continuing members of the CCCE look forward to working with Mike and Cathy.