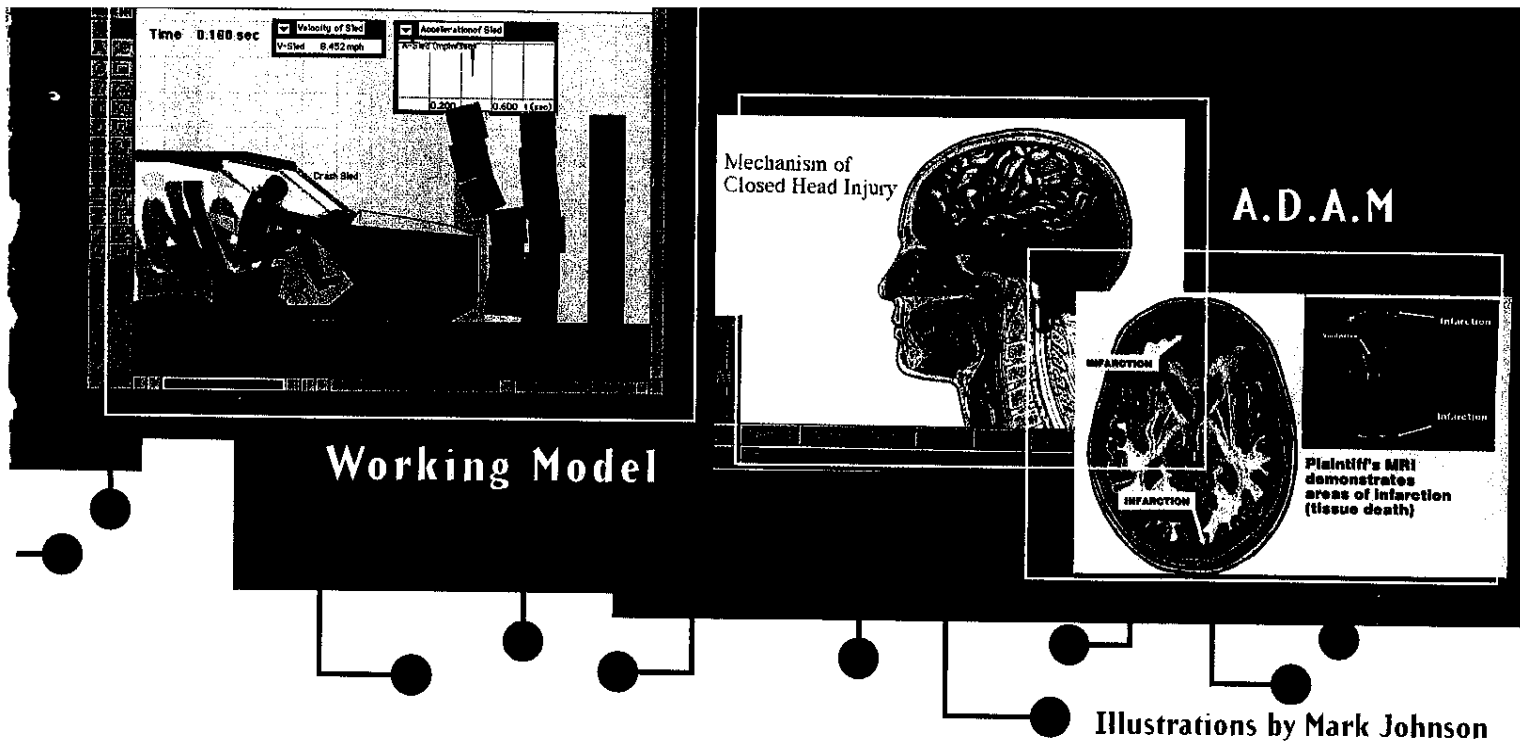


An Argument for Technology

May it please the Court:

Ladies and gentlemen of the jury, my name is Larry Savell, and I represent the plaintiff in this case, who asks this jury to render a verdict in favor of computer technology to maximize the effectiveness of courtroom presentations.

It is our position that you should incorporate into your trial preparation such aids as multimedia presentation software (including videotape clips), document text searching and display programs and, perhaps most dramatically, animation and simulation packages and services including "computer-animated reenactments" (CARs), either recorded onto videotape or downloaded onto other media and shown to the jury via a large-screen monitor. Obviously, your use of any or all of these resources must be evaluated in light of case strategy and applicable court rules and rulings.



Illustrations by Mark Johnson

in the Courtroom

By Lawrence Savell

Evidence in Support

We believe that the evidence will show that these technologies offer many benefits over traditional courtroom presentation methods.

1. Maintain interest of audience: It is widely recognized that the key to persuasion may be more *how* you say what you say, rather than simply *what* you say. As Ben Franklin (who today would no doubt be the lead plaintiff in an electrocution class action against kite manufacturers) wrote more than 250 years ago in his *Poor Richard's Almanac*, "Would you persuade, speak of interest, not of reason." Our sound-bite society has an ever-decreasing attention span, requiring points be made quickly and succinctly. If not, they will be lost among the babble of lengthy and often complex testimony.

An eye-catching graphic or a dramatic animation can seize the viewer/juror, with interest being the first step in understanding.

2. Add visualization to simple oral communication: Jurors, like most people in our society, are accustomed to receiving information from television rather than listening to testimony. Computer recreations allow jurors to "see" events rather than just hear witnesses testify about them. In essence, the technology does the visualizing for them. Those who have studied the science of communication generally conclude that judges and jurors, like most people, retain visual information better than aural information. They find that visual communication allows people to retain (1) more information, (2) with greater accuracy and (3) for a

longer time. It may really be true that a picture is worth a thousand words. If so, a video or an animated scene is worth more than a thousand still frames.

3. Assist in communicating complex information: Jurors may be confused by highly technical and/or complex facts presented in many cases, or simply the enormous volume of information thrown at them. As Edward H. Warren wrote in the preface to his 1942 book, *Spartan Education*, "I have sought to supplement precept by example, and to demonstrate by a few specific examples that the best way to be persuasive is to be simple, clear and terse." Technology will help you achieve the goals of simplicity, clarity and brevity.

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Technology

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4. Minimize the risk of surprise: Unlike a "live" demonstration, a computer animation or recreation is "fixed" in that it is unchangeable (except, of course, if it is interactive). You know what it is going to portray. It is thus more predictable than spontaneous presentations (like the prosecution suddenly asking O.J. Simpson to try on gloves believed to be worn by the murderer). However, you may be "surprised" if your opponent is able to undermine the basis or accuracy of your presentation. Opposing counsel may try to show that your demonstrative evidence actually supports his or her position, which, if successful, can be a very persuasive (and, for you and your client, a very frustrating) argument.

5. Make the impossible possible: Although it seems like more and more of life is being captured on videotape, there are still some events that have actually taken place unrecorded. Computer simulations allow recreations that would otherwise be unsafe, too costly or impossible to reproduce in real life. Examples include automobile, aviation and maritime accidents, bodily injury processes, structural failures and environmental damage patterns.

Defenses Against Potential Downsides
So that's the argument for our side. Now, after I'm done, my opponent will stand up and, in addition to disagreeing with all I've said, claim that there are some serious downsides to technology's use. Let me respond in advance. I don't deny there *are* some things to keep in mind, but I do believe that such concerns are manageable and do not outweigh the positive attributes.

1. Admissibility: I admit that some contemplated applications of technology may run the risk of not being admissible. The key, however, is to make sure you have laid a proper foundation. You must show that such exhibits and other demonstrative evidence fairly and accurately represent the conditions at the relevant time, and are not misleading, confusing, diverting or otherwise prejudicial. Normally, such evidence will be offered through the testimony of an expert witness. The court will, in its discretion, balance the value of such evidence against its potential for prejudice. Note that the court may wish to review it (or opposing counsel may request that court view it) *in camera*, outside the presence of the jury. You must be able to show that the evidence's probative value exceeds any potential prejudicial effect.

It is critical you establish the accuracy of the depiction offered. As Supreme Court Justice Benjamin N.

Cardozo wrote in 1934 in *Snyder v. Massachusetts*, "It is common knowledge that a camera can be placed, and lights and shadow so adjusted, as to give a distorted picture of reality." Although the Justice was speaking of a simpler technology, his concern remains valid today.

2. Cost: Advanced technology does not come cheap. Certainly, costs of preparing certain presentations have decreased over time (although that is somewhat offset by the constantly developing technology — it always costs more to use the latest thing). In addition, increasingly user-friendly, off-the-shelf software packages may allow lawyers to do some of this work on their own, although a true assessment of cost must factor in the expense of increased attorney time.

3. Time: Obviously, it can take significant time to create such intricate and realistic evidence. Thankfully, advances in technology have helped speed up the process. Delegating the project to graphics professionals (either outside or in-house) will likely get the job done faster, particularly where complex projects are concerned. These specialists in courtroom technology can (and, probably, should) be involved at every step of the way, from initial consulting and design through technical support in the courtroom.

Sidebar

Litigation Support Vendors

One leading litigation support vendor is JuriLink International Corporation, based in Dallas, TX (214) 521-8200. JuriLink can provide turnkey materials, including 3-D computer animation, scale modeling, graphic boards and enlargements, and interactive multimedia. JuriLink's Demonstrative Evidence-interactive (DE-i) multimedia presentation system, based on the Philips Compact Disc-interactive (CD-i) technology, allows (1) zooming and scrolling around in documents and photographs and (2) drawing and highlighting directly on top of documents as well as moving

or still video. The system works with relatively inexpensive CD-i players and standard TV monitors (more expensive computer monitors are not required, although the output resolution is limited by the monitor used). The system's program software is stored right on DE-i disc rather than on a computer's hard disk so it doesn't need to be separately installed by the user. Case materials, such as documents, photographs, deposition videos and animations, are recorded onto a DE-i disc. At trial, these materials are accessed by bar code scanner, touch screen, mouse, light pen or another pointing device.

Another leading courtroom technology vendor is Forensic Technologies International Corporation (FTI), headquartered in Annapolis, MD (410) 224-8770, with other offices around the country. FTI offers broad-based litigation support services, including an in-house computer animation group.

FTI designs graphics using Adobe Illustrator and Photoshop on Macintosh Power PCs. It creates its 2-D animations using Parallax's Matador software on Silicon Graphics Indigo (SGI) systems, and its 3-D animations using the Wavefront software package on SGI.

4. Potential backlash: Since the seminal case of *David v. Goliath*, well-heeled defendants have worried about the perception of juries (and judges) regarding the apparent imbalance of litigation resources, and, even worse, the apparent "deep-pocket" of a company that could afford a broadcast-quality presentation. There is also the concern about presentations appearing too slick or flashy, which might make some jurors think that someone was trying to put something over on them. On the other hand, given the graphics and special effects that jurors have come to expect on television, it would probably take some doing to cross that threshold. Nevertheless, it is best to temper your use of technology with prudence to minimize the risk or efficacy of your lesser endowed (technologically speaking, that is) opponent accusing you of hiding behind "smoke and mirrors."

The reality is that jurors will probably appreciate your effort to better explain difficult subjects and/or break the monotony of purely verbal testimony. In some cases, jurors may be

adversely affected by the relatively poor quality of presentation aids. In a high-profile trial I worked on several years ago, opposing counsel countered our plain but professionally printed sign boards with their own messy and somewhat illegible *handwritten* posters. The jury was not impressed.

Conclusion

Ladies and gentlemen, I ask that in reaching your verdict, you — literally — consider the evidence. I am not asking that you embrace the gamut of technology in all permutations and situations. I advocate only the prudent use of these tools, and, in most cases, with the assistance of skilled professionals.

I leave you with a final caveat I borrow from my colleagues in the Admiralty bar: Don't go overboard. The interest-attracting, concentration-maintaining and retention-enhancing benefits of presentation technology will be lost if such technology is abused through excessive use. Be selective. Make your point and then move on.

Louis Nizer, in his 1963 book *Thinking on Your Feet*, told of a famous judge who would express his impatience

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with arguments which exceeded their persuasion point by saying to the transgressing attorney, "I agree with you now, counselor, but if you continue I may change my mind." As Nizer aptly (and succinctly) noted, "A speaker who does not strike oil in 10 minutes should stop boring." **LOC**

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Sidebar

Animation Software

For the technologically-savvy (or brave), a wide variety of animation packages are available. Autodesk, one of the leaders in PC-based animation software, offers Autodesk Animation Studio for 2-D work — the Windows-based successor to the popular Animator Pro DOS product. For advanced 3-D renderings, Autodesk offers the 3D Studio Release 4, which is very powerful but may require some learning time for new users. (415) 332-2344

Other leading 3-D packages include Alias' PowerAnimator 7, (800) 447-2542; Caligari's Truespace 2.0, (415) 390-9600; and Crystalgraphics' Crystal Topas Professional 5.1., (408) 496-6175.

There are also specialized packages designed for specific needs. Virtus Corporation's Walkthrough Pro for Windows, (919) 467-9700, for example, allows you to create structures and environments which

can then be "walked-through," with the "virtual reality" viewpoint out-putted to a standard animation file. The program comes with a large number of pre-drawn furniture and other "models," which can save time in recreating crime or accident scenes.

Another useful Windows package is Humancad's Mannequin Designer, (516) 752-3568, which lets you create physiologically accurate human forms that can be positioned, manipulated and animated, and then viewed from any angle.

Working Model by Knowledge Revolution, (415) 574-7541, is a "motion analysis" dynamics and kinematics software package available for both Windows and Macintosh systems. It creates "virtual prototypes" of complex mechanical designs, allowing you to manipulate certain aspects and view the resulting effects. It has significant applica-

tions in the context of failure analyses and the determination and reconstruction of operational defects in products liability cases.

Some software packages provide factual information and graphics that will help you illustrate particular matters. One example is Medical Legal Illustration's Animated Dissection of Anatomy for Medicine (ADAM), (800) 638-1771. This CD-ROM database, available for Windows or Macintosh systems, contains hundreds of color anatomic illustrations as well as several animations depicting common surgical procedures.

If you are attempting to create animations in-house you need computer systems with as powerful processors as possible, with fast and large hard drives capable of quickly rendering and playing, and adequately storing the often-enormous files generated.