

CD/DVD Commentaries

by Péter Jacsó

A World of Information on One Disc

Encyclopedias are best able to exploit the capacity of DVD-ROM

DVD-Video technology was like a premature baby after a difficult birth. There were concerns that it wouldn't survive, but now we know that it finally made it. If you walk into a Borders bookstore or a Blockbuster video store, or visit a Web site that sells or rents DVD movies, you will see that there are far more DVD titles (about 3,200) than there were laserdiscs in that format's second year. Now the DVD-ROM can be considered a "preemie" as well. Fortunately, there are inexpensive, reliable DVD-ROM drives for less than \$300 that also play DVD movies but cost less than DVD-Video decks.

However, there is still a dearth of DVD-ROM applications. DVD-ROM encyclopedias are the most promising candidates as their CD-ROM brethren have a very wide appeal and have been selling like hotcakes for years. Still, some of the best CD-ROM encyclopedias—such as Encyclopedia Americana, World Book, and Compton's—have not been issued in DVD-ROM format. The Grolier Multimedia Encyclopedia reportedly had a DVD-ROM edition last year, but I could not get my hands on a copy, and so far Grolier has not come out with a '99 edition. There are, however, a few contenders that are promising to be killer DVD-ROM applications (as Visicalc was for the PC) or at least help to break the ice.

The Big Bucket Approach

This is the most logical approach and the one followed by most encyclopedia publishers. As they kept adding more and more multimedia elements, the once-impressive capacity of the 640-MB disc became insufficient to accommodate image, sound, animation, and video files. A few years ago, publishers began releasing standard and deluxe editions of their encyclopedias. The latter included significantly more multimedia elements than the standard edition and cost \$20 to \$30 more.

Sometimes the deluxe editions offer other goodies as well. Encarta Deluxe CD-ROM, for example, includes 1 year of free access to the excellent Online Encarta Deluxe on the Web.

Encyclopaedia Britannica distinguishes its two CD-ROM versions as standard and multimedia editions. The increased multimedia content of the latter required the use of an additional disc to accommodate the content. One obvious inconvenience was the necessity to swap CD-ROMs in the middle of a search to look, for example, at a panoramic photo of a landmark building, or to listen to an excerpt from a presidential speech or an aria from an opera. Based on my experience, few people swapped the discs, even though the smartest encyclopedias offered the text on every volume to minimize disc swapping.

Additional, Improved Multimedia

The 4.2-GB capacity of the DVD-ROM disc is a relief for those publishers that can put the entire content of a deluxe version

on a single disc and still have half of its capacity available. This extra space is used to add additional multimedia files to the encyclopedia or to add improved-quality multimedia. For example, the DVD-ROM edition of Encyclopaedia Britannica adds 2 hours of audio, which were absent from the multimedia CD-ROM edition. Most of the audio content consists of national anthems in WAV format that eat up much more space than the puny MIDI versions, which simply can't reproduce the solemnity of most of these tunes. Britannica DVD also features 3 hours of video—including some excellent footage of the Amazon region and the Apollo space program—instead of the half-hour of video on the multimedia CD-ROM edition. There are also 5,000 more images on the Britannica DVD-ROM than on the Britannica Multimedia CD-ROM. The Encarta DVD-ROM Deluxe edition has 70 percent more videos and 120 percent more panoramic images than the Deluxe CD-ROM version.

The IBM World Book Discoveries database—not to be mistaken for the World Book Encyclopedia—was born as a multimedia database with a mere 30,000 words of text. It required four CD-ROM discs to accommodate the sumptuous collection of images, the unusually high number of animations (about 1,000), and the 7 hours of audio. As the animations and audio files—including rich audio narration and ambient sound—are essential for the use of this unusual encyclopedia, the DVD-ROM alternative was really a must. This product, based on the famous Gallimard-Larousse Encyclopedia, conjures up images of the original encyclopedias' style and organization. It offers 12 broad themes—including some unusual but very interesting ones, such as Clothing, Food, Work, and Home—as well as 13 periods, ranging from Prehistory to Nuclear Age, for exploration. The launch pads of these explorations are the "Eye Opener" screens that depict a composite scene from a specific theme, such as Housing in the 18th Century. These composite scenes are filled with automatic and mouse-triggered animations that you can activate as you navigate the screen and venture into different eras or other aspects of the same era. The whole idea is to engage the users and immerse them in period music as well as appropriately ambient music. Asking users to swap discs is like turning up all the lights while slow dancing. Another problem is that some of the animations are distractingly sophomoric and remind me of the nodding Chihuahua from Taco Bell's TV commercial.

The DVD-ROM's capacity makes it possible for the Webster International Encyclopedia to offer 13,700 top-notch photos and substantial videos. I have yet to see any other encyclopedia with similarly rich pictorial coverage of the Pacific Ocean region. Just for Fiji alone there are 12 images. In the Vanuatu article, the 10-minute

video footage on the famous Pentecost Jump (the Melanesian fertility rite from which bungee jumping originates) is as good as a short TV documentary. However, this encyclopedia deserves a far better interface and better search software. It is possible to combine good multimedia and good software, as illustrated by the Funk and Wagnalls DVD-ROM encyclopedia, which does not get the recognition it deserves. It comes bundled with some DVD-ROM upgrade kits, but it is not available as a separate product through mail-order companies, let alone in computer stores.

Multiple Product Integration

The most sophisticated use of DVD-ROM capacity is illustrated by Encarta DVD-ROM Reference Suite '99. While the 1998 edition merely offered the Big Bucket approach to accommodate the Encarta Deluxe Encyclopedia, the magnificent Virtual Globe atlas, and the Bookshelf collection of first-class ready-reference sources, the current DVD-ROM version masterfully links these sources. An article about George Bernard Shaw in the encyclopedia provides a link to the Quotations Dictionary in Bookshelf that in turn may have links to the atlas. All of these may be accessed with a single click instead of a disc swap. The difference in convenience—and therefore the motivation to try all the links—is immense.

The DVD-ROM version of the Encarta Reference Suite adds additional multimedia content to the CD-ROM edition, including 35 percent more videos; 20 percent more panoramic photos; sharper, higher resolution; and better quality audio and video. But it is the linking that brings out the synergy among these three awesome products and 12 reference sources—all delivered on a single disc, as opposed to the five discs of the CD-ROM version.

As I wrote this in early April, I heard that Compton's Encyclopedia and Dorling Kindersley's World Atlas were released on DVD-ROM. Both have been very popular on CD-ROM, and both companies have some other very useful CD-ROM products. Obviously, the next step will be to issue a DVD-ROM database that brings out the synergy of those products through editorially created links. I certainly will cover them in this column. A few hundred such titles on DVD-ROM would not only make the product successful, but would guarantee the survival of DVD-ROM technology.

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IEEE Unveils Two New CD-ROMs

IEEE (Institute of Electrical and Electronics Engineers, Inc.) has announced the CD-ROM release of its Engineers' Guides to Business series, and the release of Successful Software Project Management, a CD-ROM course.

Engineers' Guides

Now available on CD-ROM from the IEEE is the Engineers' Guides To Business Series. Originally produced and still available in book format, this series seeks to develop within the business-minded engineer an awareness of nontechnical skills. Titles in the series include:

- Presentations That Work
- Writing for Career Growth
- High-Tech Creativity
- Winning the New Product Development Battle
- Building Internal Team Partnerships
- Teaching on TV and Video
- Starting a High-Tech Company
- Working in a Global Environment
- Starting to Manage: The Essential Skills
- Marketing for Engineers
- Practicing Engineering Ethics

According to IEEE, the CD-ROM is highly applications oriented and is meant to be used on the job. Its price is \$79.99 for IEEE members and \$99.99 for nonmembers.

Software Project Management

Successful Software Project Management is a CD-ROM course that presents the latest and most effective software management techniques, according to IEEE. Presenter Phillip Laplante takes a holistic, systems-based approach in his explanation of unique software development features, strategic risk assessment, avoidance and mitigation, and project management techniques.

According to IEEE, viewers will learn how to monitor and control the software life cycle, perform software cost estimation, write better requirements documents, develop management techniques that will improve project management, build problem-solving skills and techniques, and relate to other members of the software project team.

The Successful Software Project Management CD-ROM is \$59.95 for IEEE members and \$79.95 for nonmembers.

Phillip Laplante is dean of the BCC/NJIT Technology and Engineering Center. He has more than 14 years of experience in designing real-time systems, and was the lead software engineer in the design and implementation of a new generation of inertial measurement systems for the space shuttle. Laplante has taught courses and has consulted in real-time design throughout the U.S. and Canada. He has published widely on real-time systems, image processing, real-time imaging, and software engineering.

Source: IEEE, Piscataway, NJ, 800/678-IEEE; Fax: 732/981-9667; <http://www.ieee.org>.