

MARKETPLACE

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Try using CD-ROM technology to eliminate costly paper trails

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SPECIAL TO CW

Need to send three binders of forms and procedures to a dozen offices and update them every month? Why not put the information on a CD-ROM?

CD-ROMs, short for compact disc/read-only memory, look just like the compact discs that have been sold in record stores for the past five years, except instead of holding digitized music, they store data — and lots of it. A single CD-ROM can hold more than 500M bytes of information.

To get that information off the disc, you need a special CD-ROM drive. These drives look like regular compact disc players, except instead of connecting to your amplifier, they connect over a small computer systems interface to your computer. Most CD-ROM drives cost anywhere from \$300 wholesale to \$900 retail.

Because the data on most CD-ROMs is arranged according to International Standards Organization standards, you can read most CD-ROMs on different kinds of computers, including IBM Personal Computers, Apple Computer, Inc. Macintoshes and a number of workstations.

For nearly three years, publishers have been using CD-ROMs to deliver 100M-byte databases to the desktop. For example, you can buy a CD-ROM set con-

taining the name, address, ZIP code and telephone number of every person living in the U.S. from Phonedisc USA in Warwick, N.Y.

However, a less visible and potentially more widespread CD-ROM application is to distribute information internally, according to Jeff Casto, who manages retail products at Dublin, Ohio-based Discovery Systems, one of the largest CD-ROM manufacturers in the U.S.

The reason is cost: After spending between \$1,000 and \$2,000 to make a CD-ROM master, each disc can be pressed for about two dollars. If you are sending out 222,000 pages of text — about the amount a single CD-ROM can hold — the cost of the paper and postage alone far outweighs the cost of the CD-ROM, according to Knowledge Access International, a maker of CD-ROM indexing and retrieval software in Mountain View, Calif. Even if you are only sending out a 300-page binder, it's still cheaper to press and mail a CD-ROM.

Compared with floppy disks or magnetic tape, CD-ROMs offer the advantages of significantly lower failure rates as well as data permanence: The information on a CD-ROM can't be changed, accidentally or otherwise, and it is also safe from magnetic fields and coffee spills.

These days, it's quite easy for nearly anybody to make a CD-ROM. All you do is set up a hard disk with all of the files and

directories that you want on the CD-ROM and copy them onto a backup tape. Next, send that tape to a CD-ROM mastering plant. At the plant, the data will be copied off your tape, processed and etched into a glass master. This master is then used to make the individual discs.

But setting up your hard disk — acquiring and arranging the data — can be a time-consuming task. First, you have to get the data on-line. If most of your documents are available only on paper, they will have to be retyped or scanned with an optical character reader.

ual or a floppy disk with patches, installing the updates is often so difficult that users simply don't bother. The problem is most severe with technical documentation and procedures, says Richard Bowers, executive director of the Optical Publishing Association in Columbus, Ohio.

With a CD-ROM, instead of sending out updates, you send out new snapshots of the database, each one a complete copy containing every file. Users throw away their old CD-ROM and start using the new master CD-ROM.

Once your users get their CD-ROM drives, a whole world of information literally opens up. Many companies as well as the government are selling massive databases on CD-ROM, many for a few hundred dollars or less. And there are more than a dozen CD-ROMs containing public domain software, fonts, music and images for IBM PCs and Macintosh computers, most costing \$50 or less.

For an idea of the information available, request a catalog from the Bureau of Electronic Publishing, P.O. Box 43131, Upper Montclair, N.J. 07043, or call (201) 746-3031. The Optical Publishing Association provides a list of firms and consultants who specialize in helping businesses develop internal CD-ROM applications. The Association can be reached at P.O. Box 21268, Columbus, Ohio, 43221 or by calling (614) 793-9660.

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Top 5 best-selling CD-ROM discs

- 1 Microsoft's Bookshelf
- 2 Grolier Electronic Publishing's Encyclopedia
- 3 Microsoft's Programmer's Library
- 4 Bureau of Electronic Publishing's Between Heaven and Hell II
- 5 PC-SIG's Library

Source: Bureau of Electronic Publishing

CW Chart: Doreen St. John

Next, you must figure out how to organize the data and decide how your users will read the information. For simple applications — having a CD-ROM filled with forms, for example — you may be satisfied just by putting the raw information onto the disc and letting your users copy it off. Most applications, however, will require suitable indexing and retrieval programs that cost \$50 to \$200 per copy.

Another advantage that companies find with CD-ROMs is their ability to update expeditiously. When a company sends out updated paper pages for a man-