

Which CD-ROM Drive Should You Buy? (Part II)

by Peter Jacso

In the last issue, we looked at the compatibility and performance characteristics of CD-ROM players. Now, we discuss the features of CD-ROM drives that make their use and operation more convenient and reliable.

A CD-ROM drive with the right features will be easy to use and have a relatively long lifetime. Some features are somewhat overhyped in product brochures, while others are important and

not incur much extra cost.

Internal or external drives

Many of the CD-ROM drives come both in external and internal versions, but with otherwise identical performance features. Which one is better? If you don't have a free bay in your PC, you have no choice, of course. But otherwise, the internal one is better. It does not take extra desk space or require its own case and power

supply, and it reduces the cable spaghetti—at least on or behind the desk. Plus it saves a hundred bucks, typically. If you have to transport the drive to another PC or to the repair shop, you probably cannot avoid opening up your PC, even if you have an external model. With external drives, you have to remove the interface card (except if it is a SCSI drive, and the PC on which the drive will be tested has a SCSI port, either direct on the PC or on a SCSI drive attached).

Physical characteristics

The size of CD-ROM drives has not changed as dramatically as has the size of the PC and most of its components, mainly because the disc itself has a standard diameter of 4.75 inches. However, the boxes of

the external drives hold a lot of air. If you open a drive you will see that the components in those nine- or 10-inch-wide boxes could be accommodated in containers of much smaller footprint. As long as you have a PC on the top of your desk this is of little concern, as the drive sits between the system unit and the monitor.

However, if you prefer keeping your PC on the floor in a vertical position, then the oversized CD-ROM boxes, such as the 2.9-inch by 9-inch by 12.8-inch Hitachi CDR-1750S, tend to be inconvenient because they cannot be put on the edge of the system unit.

CD-drives of smaller dimensions and lesser weight are essential if you want to carry them. There are a few drives specifically meant for people on the go, such as the NEC CDR-36 or the Porta-Drive T3301 which can fit in the pocket of your Banana Republic jacket—without the AC adapter. In case of internal drives, the only size criteria is that they must fit into the bay of your system unit.

A multiple-disc question

If you need several drives attached to one PC (e.g., when you use a multiple-disc mega-database like Medline) should you have stand-alone drives or drives which may be daisy-chained? The former is more expensive, require more slots, and seems to be an overkill. In the daisy-chained alternative the first drive is connected to the interface card, the second is connected to the back of the first, and so on. Usually seven to eight drives can be daisy-chained. Some drives cannot be daisy-chained at all, and a few brands limit the number of daisy-chained drives, like the Allegro (two drives), or the Sony CDU-720S (four drives).

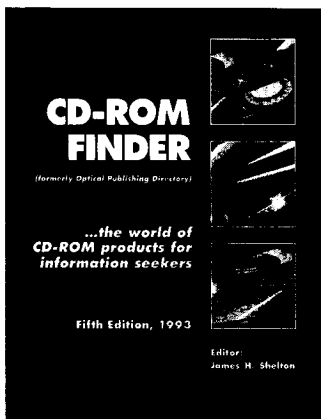
If you want to make several databases available on a single PC without the hassle of manually swapping discs, then the Pioneer jukebox (still the only jukebox) is by far the best solution. It has six trays and one reading mechanism. The new model (604X) features much-improved access time, a unique 256K buffer, a 600K-per-second transfer rate, and a much-higher price tag than the original 6600 model.

Reliability boosters or bells and whistles

The vast majority of CD-ROM drives require now that you put the disc in a caddy before inserting it into a drive. Many consider that such a solution helps to maintain the integrity of the discs. But others find caddies a pain in the neck, and this author has never had a single disc damaged by being used in a caddyless drive. The discs seem to endure easily the normal tear and wear for a month or two before the update disc arrives. This a secondary issue compared to the other criteria. If you need a caddy, it may be hard to find, and the going price of \$12 to \$14 is as much a rip-off as airport food. Buy them at the reasonable \$5 a pop from Walnut Creek CD (800-786-9007) if you have to.

Much more important is the double door feature which can significantly reduce dust getting into the drive. Automatic lens cleaning is a godsend for customers who care as much about cleaning the lenses as bachelors care about washing the

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5th Edition, 1993

Compiled & Edited by James Shelton

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dishes before they overflow the bathtub.

These two features can extend the lifetime of your CD-ROM drives and are fairly common today. Chinon's CDC-435 is a notable exception, lacking any of these features.

Mean Time Between Failure (MTBF) figures supplied by the manufacturers—ranging between 10,000 and 50,000 hours—do not really mean much. You cannot prove for how many hours have you been using the drive and even if you could it does not guarantee a replacement or your money back. What is really important is the warranty (for parts and labor). Look for those drives which have two-year warranty; this gives you peace of mind, and, frequently, a toll-free technical-support line for unforeseen situations.

Some miscellaneous convenience features are worth your attention. Headphone jacks on the drive are the inexpensive solutions for listening to audio clips, especially if there are other workers in your work area. There should be also an easy-to-reach volume knob on the drive. (The separate sound boards sold for around \$200 usually provide the interface also for CD-ROM drives, but they may only support one brand, such as the SoundBlaster card, which can accommodate only the Panasonic drive.)

Power and busy indicator lights give useful cues that the drive is on and working. Autosensing of 110 and 220 voltage gives you peace of mind if you travel with your drive between Europe and the United States. This feature is applicable only to external drives. The internal drives take their power from the PC.

RPI Has a Lot of Gaul

The complete text of *Le Monde*, France's renowned daily newspaper, will be distributed on CD-ROM in full-text format by Research Publications, Inc. (RPI).

In France, *Le Monde* is essential reading for politicians, administrators, and professionals from all walks of life. Through CD-ROM distribution of the six-day-a-week publication, librarians, reporters, students, researchers, and Francophiles of all kinds will be able to gain electronic access to topics covered by *Le Monde*.

A supporting subject index "allows you to get directly and quickly to all relevant material, thus saving time and energy," said Leigh Watson Healy, vice president of RPI. The complete editorial text of *Le Monde*, accompanied by selected pictures, graphs, maps, and line drawings (including cartoons) will be delivered quarterly by subscription and cumulated into a single annual disc containing a complete year's text of *Le Monde*. A backfile disc covering the 1992 editions will be available, and further backfiles are being considered. The 1993 subscription costs \$1,075.

For more information; call RPI toll-free at 1-800-444-0799, or write to Research Publications International, 12 Lunar Drive, Woodbridge, CT 06525.

The length of the cable supplied may seem to be a trifling issue. But wait until you want to move the CD-ROM a little bit further away from the system unit and you will know how dogs on a short leash feel. A three-foot cable is OK, but the less-than-two-foot cable of PLI is an inconvenience.

A caveat

The list of CD-ROM manufacturers looks like a Japanese Fortune 100 list (NEC, Hitachi, Toshiba, and Sony, to name a few). You might feel inclined to go after the names familiar from the entertainment industry. But it is not necessarily a good idea. The product which seems to have the best performance and compatibility features as of Spring 1993 is the Texel DM5024 from a relative newcomer,

Shinano Kensi Co. It offers a 265-msec access time, a 300K-per-second transfer rate, a 64K buffer, CD-ROM/XA capability, a SCSI-II controller, and 110-220 dual voltage, at a reasonable price of \$699.

Just as for Japanese brand names, don't assume well-known American brand names are best. The worst drive you can have is the IBM-CD—a run-of-the-mill drive with a pathetic price tag of \$1,350. With such products, it is no wonder that IBM is deeply in the red. Compare this with the no-name brand Talon which has similar capabilities and sells for \$299, including the Grolier Multimedia Encyclopedia disc.

Never forget that your hardware system is as good as its weakest component. If you attach the superb CDR-74 to an ailing PC

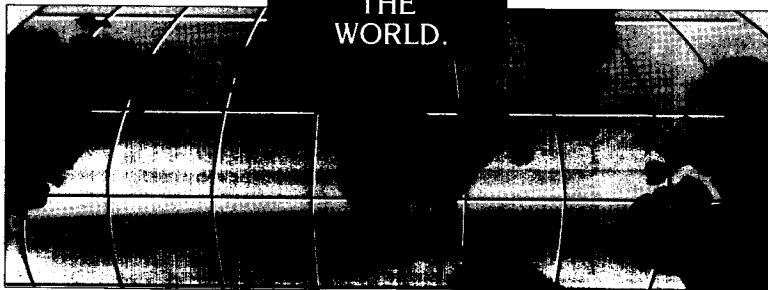
with a 4.77 MHz, 8088 CPU, CGA monitor, 512K RAM, and a 10Mb hard disk, your multimedia application will not run on it, and even a text application would crawl rather than run. It requires two to tango: a well balanced, powerful PC configuration to bring the best out of the CD-ROM drive.

Peter Jacso is a visiting associate professor at the School of Library and Information Studies of the University of Hawaii. He often speaks and teaches workshops at national and international conferences, and frequently publishes in professional journals. He won the Best Paper of the Year award of Learned Information and GEAC in 1990. Recently, Libraries Unlimited has published his book entitled CD-ROM Software, Dataware, and Hardware.

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