

ALTERNATIVES FOR A HEALTHIER PLANET

How to Be an Environmentally Correct Publisher

BY PAM LOMAN

If it hasn't happened to you yet, it probably will soon: You absent-mindedly toss a stack of papers in the trash can, only to hear a coworker ask, "Haven't you ever heard of recycling?" If you feel as if the environment police are on your case, it's understandable. Recycling is probably the most common expression of the increasing environmental concern in recent years: It's also something everyone can practice.

That concern extends to many aspects of publishing and printing too, from effects on air pollution to the creation of toxic wastes. But aside from knowing that you're doing the right thing, are there practical reasons to change your work habits? Is it really worth recycling used paper? Can you buy recycled paper that's as attractive and affordable as "virgin" paper? Will being "environmentally correct" cost you money or be inconvenient?

The fact is, environmentally sound production and printing procedures won't cost you much, if anything, and require few changes in the way you work. The ten steps described here—simple actions you can perform every day—will make a difference and put you well ahead of the environment police in your office.

STEP 1: Use recycled paper and suggest its use to your clients. Using recycled paper won't reduce the amount of trash you generate, but it will help keep paper out of landfills and trees in the forests. Three questions arise when you buy recycled paper: What's it made of, what kind of quality can I expect, and how much does it cost? (See our Resources listing, page 94, for sources of recycled paper.)



A T A G L A N C E

Increase your publishing operation's environmental consciousness without decreasing efficiency or profits: ten tips on reducing trash and toxic by-products.

What's it made of?

Many kinds of paper are called recycled—no single definition is accepted throughout the paper industry. Recycled paper is best judged by two criteria: the kind of waste materials used to make it, and the percentage of the paper that started as waste material.

Paper that's produced from trimmings and scraps left over from the paper-making process is said to be made from *pre-consumer* waste; that is, paper that has never been sold. Paper manufacturers have been making this kind of recycled paper for years.

"Using these types of paper exclusively is not the answer," says Susan Kinsella, former research and communications director for Conservatree, a leading distributor of recycled paper. The best solution is to buy paper made at least partly from *post-consumer* waste—the tons of paper we throw away every day—because it reduces the amount of trash clogging our landfills.

The Environmental Protection Agency (EPA) considers anything with a 50 percent recycled content "recycled paper," but doesn't set a standard for post-consumer waste content. A typical paper might be 50 percent recycled content, but include only 10 percent post-consumer waste. Many recycled papers that contain post-consumer waste are labeled accordingly, but if not, inquire of the paper mill, paper distributor, or printer's representative who sells you the paper. Most salespeople in the paper business will know the answer about their paper's content because their customers are asking the question more often these days.

What kind of quality can I expect from recycled stock?

You can expect recycled stock to be as good as virgin paper if you know what you're looking for and select it carefully. Three factors determine paper quality, whether virgin or recycled: weight, brightness, and coating (which adds glossiness). For reference, *Publish* uses a 40-pound coated text-paper stock with a brightness rating of 70 for inside pages, and an 80-pound coated virgin stock for the cover, with a brightness rating of 82.

You can now find recycled paper in as many combinations of weight, whiteness, and coating as virgin paper. Until last fall, however, a recycled coated stock of 45 pounds or less, suitable for the inside pages of magazines and catalogs, wasn't available to publishers. At press time, *Buzzworm: The*

Environmental Journal, announced that its January/February 1991 issue would be the first consumer magazine to be printed on recycled coated paper, according to Joseph Daniel, editor and publisher. *Mother Jones* has used recycled coated stock for all its covers since the April 1990 issue, and at press time the staff was evaluating a new stock under 45 pounds from the Conservatree Paper Company for the inside pages. The reason this paper became available, according to Conservatree, is that commercial publishers demanded the lower weight.

A few pioneers were early adopters of the uncoated stock that existed before coated paper was available. *Garbage* magazine, a four-color magazine that bills itself as "The Practical Journal for the Environment," uses recycled paper throughout. *E Magazine*, another environmental journal, has used recycled paper since it began publishing in January 1990.

Garbage's recycled paper is made with 10 percent post-consumer waste and according to advertising associate Jim LaBelle, who oversees production for the magazine, is not much different in texture and appearance from coated paper. The choice created a couple of production problems, though. For one, recycled paper has more of a tendency than virgin paper to "pick," which means that bits of fiber come loose from the paper, stick to the printer rollers that apply ink, and cause donut-shaped imperfections on the printed page. To help prevent these imperfections, LaBelle recommends asking your printer to lower the tack (stickiness) of the ink, so that fewer fiber bits will adhere to the rollers.

Another common problem with recycled paper is its absorbency. LaBelle says, "The paper we use is one of the more absorbent kinds of paper—it's made with less clay and more starch—so we have to watch for a dot-gain in four-color printing." To avoid this problem, he recommends doing a fresh set of color separations, with the line screen adjusted for the particular paper to be used.

The proportion of post-consumer waste in recycled paper affects its quality, too. As Earl McGhee, President and Creative Director of Rothman/McGhee & Co., an independent Chicago design firm, explains: "The higher the content of post-consumer waste, the more of a quality difference you'll get between recycled paper and virgin paper." McGhee emphasizes, however, that if you carefully choose your paper, recycled paper is a viable alternative.

The Big Picture



One difference in paper with a high percentage of post-consumer waste is that it's more likely to have a textured or speckled look. For many projects, though, that can be just the look you're after. Mark Monaco, of Monaco Viola Design, Inc. in Chicago, has used recycled paper for about three years and says, "Use recycled paper especially if you want to create a warm feeling, or an antique look with some of the speckled papers. It's really got a mood."

What's the cost of recycled paper?

Prices for recycled paper vary widely according to the type of paper you buy and which paper company you buy from, as is the case with virgin paper. Recycled paper comes in just about every weight and size, including computer, bond (writing paper), offset (uncoated book paper), xerographic (for photocopying), text (a grade of paper with textured surfaces), and cover (a thicker grade of paper used for covers and postcards).

Currently, the kinds of recycled paper that are most in demand typically cost more than virgin paper, but don't assume this is always the case. Shop around. "The recycled specialty papers such as rag bonds and designer papers are equal in price or less expensive than virgin papers," says Susan Kinsella, formerly with Conservatree. "But other recycled papers that are in greater demand, like laser printer paper, can cost about seven percent more than virgin papers—although the price gap varies widely."

Several factors cause this gap. One is that many paper mills are just gearing up to the increasing demand, so they may lack the proper equipment and efficiency to produce a large volume of recycled paper at low cost. You're also paying for the mills' new equipment and expanded facilities.

Another reason for higher prices is that current demand outstrips supply, so the paper mills charge accordingly. "It may be a year or so before those prices come down," says Kinsella, "but as the market evens out and the mills get better equipment, prices will be comparable for all paper."

STEP 2: Buy recycled paper from a mill that recycles its waste products. When paper is "de-inked," or has the ink removed in order to be recycled, about one-fifth of the ink is drawn off as sludge. Ideally, your paper source should be a mill that not only complies with EPA regulations for waste disposal, but recycles the waste. "The leftover sludge from our mill is used as a soil conditioner after it's treated," says Ken Carlson, Technical Director for Fox River Paper Co. in Appleton, Wisconsin.

"Expect to see more and more mills doing this," says

Kinsella, "although some mills still bury the waste in landfills." The only way to find out which mills are properly disposing of waste is to ask them. Of course, a mill might not willingly discuss this, but it's likely that the ones who are following environmentally sound procedures will be happy to tell you what they're doing.

The chlorine bleaching process in paper-making is another environmental problem, one that affects virgin paper as well as recycled paper. Even *Greenpeace Magazine* uses chlorine-bleached recycled paper for its inside pages, though the cover is printed on a stock imported from Sweden that is bleached using a less-polluting, oxygen-based process. According to Greenpeace, this compromise is unavoidable because currently there isn't a North American market for paper that's bleached with a non-polluting method. You can help create this market—start asking for it.



Unlike those containing petroleum products, soybean-based inks make use of a renewable resource and don't create ozone.

STEP 3: Reduce the amount of paper you use. One of the best ways to save paper is to use as little as possible.

- Edit on screen and transmit text or documents by modem when possible.

- Use electronic mail, and print out only the messages you need to save for documentation or future reference. "I don't believe people think of electronic mail as a way to save paper," says James Margolis, who is heading an office recycling program for the 800-employee Chicago branch of Deloitte & Touche, which is a nationwide accounting firm. "But using E-mail and not printing out the messages saves paper as effectively as using a ceramic cup instead of a Styrofoam cup."

It's cheaper, too. Apple Computer has instructed its 14,000 employees to use the company's E-mail system whenever possible. The result: an estimated savings of 42 tons of paper per month.

- Don't print a diagnostic test sheet every time your printer starts up. Practically none of IBM's printers spits out a test sheet automatically, according to the company, and most Hewlett-Packard printers have a manual test-print button. Apple LaserWriters, however, automatically kick out a test sheet. Macintosh owners can use a desk accessory called LaserStatus from CE Software to prevent this; PC owners can use the PSPlot utility from Legend Communications. Whether you own a Macintosh or a PC, see "Q&A" in the December 1990 *Publish* for a tip on how to write PostScript code to stop a PostScript printer from printing a test page every time you start it up.

- Don't overprint. There are some good reasons for printing more copies of a publication than you need: for back issues

to sell, for instance, or for samples. In addition, printers' contracts often allow a 10 percent variation—over or under—from the number of copies a publisher requests, so you may have to order more anyway.

But ultimately, any overstock ends up in the trash (hopefully headed for recycling). Take the time to figure out how many copies you really need. "We usually print about a million copies of our catalog," says Joe Hovey, senior production coordinator at Esprit (see "Esprit Blends Fashion With Ecology" on page 92). "This last time we only printed about half a million. We know that not everyone who was getting a catalog was interested in one, so now we're more targeted in sending them out."

STEP 4: Use the front and back of every sheet of paper. The easiest way to do this is to use a printer that has a built-in "duplex" printing feature, such as Hewlett-Packard's \$3,595 LaserJet IIID. Otherwise, you need to send paper printed on one side back through the printer yourself.

For maximum convenience, keep a box next to your laser printer for paper that's only been used on one side. This system works best if you're the sole person using the printer, or if you share the printer with just one or two people; in a large office, having two sets of paper to print on could be confusing. It's also more convenient if your printer has two paper trays, so you can keep one filled with half-used paper.

If you decide to try this in a workgroup, people should have a way to select the appropriate paper tray from their desks. One solution for PC and Mac owners is to use any of the QMS printers, which ship with the PS Executive Series utility that lets you choose the paper tray without getting up from the computer. The Windows control panel for PCs also provides printer setup options for selecting the paper tray. Mac owners should check whether their software's APD (Adobe Printer Description) file provides an option under the print menu for selecting paper trays—some do.

You'll still face problems with paper handling and print quality when printing on both sides of a page. Jerry Baumunk, hardware support engineer for Hewlett-Packard, explains, "Because the used paper and the clean paper go through the same paper path, the new page being printed on will smudge." Apple agrees that quality will suffer, but recommends this solution: If you're getting smudges after running sheets back through the printer, try running a few clean sheets through to clean the paper path. You shouldn't experience the problem until after printing hundreds of sheets, so you'll still be saving paper.

STEP 5: Salvage used paper. Recycling used paper, faxes, and envelopes is one of the easiest ways you can save paper. Patricia Poore, editor-in-chief and publisher of *Garbage* magazine, suggests, "Put a box by everybody's desk, next to their trashcan. The paper that's been used on both sides goes in the box. Recycling centers or salvage companies will come take it away in bulk and recycle it."



Packaging for peanuts? Some mail-order companies have switched from costly styrofoam pellets to shredded paper and smaller cartons.

Ask your recycling company about any restrictions or requirements they have. For one thing, you may need to bundle up the paper neatly yourself before they cart it off. In addition, "Lots of places won't take fax paper or coated paper," says Ken Dunn, who runs The Resource Center, a Chicago recycling company that accepts all kinds of paper, including coated stocks. "You really won't have a problem getting someone to take laser-printed paper, although you probably won't get any money for it."

An informal survey of five recycling centers in the Chicago area indicates that you'll be paid about 1 or 2 cents a pound for green-striped computer paper, and nothing for laser-printed paper. The difference, an

Uptown Recycling Center representative explains, is that "Paper that has laser printing on it is more expensive to de-ink, because the printing is fused to the paper."

STEP 6: Recharge or recycle laser printer toner cartridges. Remember that 5,000-mile-long line of laser printer cartridges? (See "The Big Picture," page 84). That's the best argument for contributing your used plastic toner cartridges to a recycling program, or recharging them with toner.

Unfortunately, the choice between these two options isn't clear cut. You'll have to decide who to listen to: The laser printer vendors, who are in the business of selling new cartridges, say "don't recharge"; the companies who are in the recharging business say "go ahead."

One reason to recharge a cartridge is that you save money: A recharge will cost you between \$40 and \$60, while a new cartridge can cost twice as much. Recharging companies that pick up your used cartridge, refill it, and return it to you are springing up all over. Most of these services are advertised in computer publications. Both Apple and Hewlett-Packard, though, strongly advise against using recharged cartridges. They claim that a laser printer cartridge will only last until the toner runs out and after that won't provide "optimal performance," but neither company describes what specific problems you can expect.

Furthermore, the printer manufacturers haven't evaluated the recharging techniques practiced by independent

gram, prints its catalog on recycled paper, and is even looking into ways to put outside correspondence on electronic mail in order to save paper.

Some product manufacturers are also becoming more aware of environmental problems. Bitstream has been using recycled paper for its FaceLift software packaging since August 1990 and plans to eventually phase in recycled paper for all its packaging. "We decided to do a better job environmentally," says Louise Domenitz, director of corporate communications for Bitstream. "We've made a commitment to use recycled paper wherever feasible."

The paper in most of the FaceLift package includes 10 percent post-consumer waste, but some parts of the packaging still require the use of virgin paper. "There's a shiny inside flap that just wouldn't score [crease] properly with any of the recycled stock we tried," says Domenitz. "If more people started using recycled paper for packaging, perhaps the paper industry would manufacture a special kind of packaging paper."

STEP 8: Choose a commercial printer that handles hazardous chemicals safely. There are EPA guidelines for the disposal of waste chemicals; look for printers who comply. Ask to see the shop's EPA registration certificate.

Among the long list of printing's hazardous chemicals are solvents used in photographic and clean-up materials. "In some states, ink itself is considered hazardous material," adds Tom Purcell, Director of Environmental Programs for the Printing Industries of America. "There's no one product substitute for all the hazardous materials in a print shop, but for the last 10 years there have been more and more products that cut down on hazardous materials where they can."

Purcell cites water-based, rather than solvent-based, cleaning materials, and soybean-based ink, which became available for commercial printers about two years ago. Unlike petroleum-based ink, this type of ink consists mostly of soybean oil and pigments and doesn't create ozone (which can damage the respiratory system) when put through the printing process. The other virtue of soybean-based ink is that it's a renewable resource. *Soybean Digest*, the magazine for the American Soybean Association, estimates that 200 commercial printers and about a third of newspapers nationwide are now using this ink.

Soybean-based ink may cost more, depending on what kind you choose. According to Stu Ellis, director of domestic marketing programs for the American Soybean Association, "Black soy ink costs about 25 percent more than petroleum-based ink. But with the instability in the Middle East and the subsequent rising cost of petroleum [at press time], the price gap is closing." Ellis points out that soybean-based ink has a built-in economy to offset the extra expense: "More papers can be printed with less ink."

Soybean-based ink can be smeary because it takes longer to dry, but there are satisfied customers. "Quality has been very good and prices are getting more competitive," says Larry Jahnke of the Printing Services Department of the University of Missouri-Columbia. They used soybean-based ink to produce 25,000 pages last year.

"The market is responding to the problems printers have

with hazardous chemicals," says Jack Makowski, product manager for Hoechst Celanese Corporation, which sells a color proofing system that replaces solvent-based chemistry with water. "Some of the products out there for printers are very good. Some have technical problems or are expensive, but they're what printers are looking for."

STEP 9: Protect yourself I: Keep your laser printer in a well-ventilated area. A laser printer releases a small amount of ozone every time that laser light, electric charges, and plastic toner powder come together to produce a printed page. Ozone plays a useful and necessary role in blocking out the sun's ultraviolet rays in the upper atmosphere, "but down here at breathing level," points out Maggie Robbins of the American Lung Association, "it can damage the respiratory system, and cause headaches, coughing, and fatigue."

The amount of ozone released by Apple, Hewlett-Packard, and IBM printers is far below the Occupational Safety and Health Administration stan-

dard of a maximum 0.1 parts per million. But still, you should never sit next to the printer, especially if it runs all the time. Even if you sit well away, though, you don't escape the problem. Dr. Gray Robertson, a chemist who has surveyed almost 300 major U.S. buildings for indoor air pollution problems, points out, "The problem starts when laser printers as well as copiers are in a work area that isn't well-ventilated or you have a lot of them going all the time."

You'll know you have a problem if you can smell it. "Ozone smells like a lightning storm; it's pungent, acrid. If you can smell it, it's too high to be good for your lungs," says Robert Phalen, director of the Air Pollution Health Effects Laboratory at the University of California-Irvine.

If you smell ozone, either find a way to better ventilate the room, or change the ozone filter on the printer. Not all printers have this filter, so ask your dealer or the printer manufacturer. "We recommend changing the ozone filter on Hewlett-Packard printers every 50,000 pages," says Jerry Baumunk. Apple says that all the printers in the LaserWriter II family have an ozone filter, but simply advises that you change the filter when you smell ozone. In any case, ask your dealer to change the filter unless you're technically proficient.

You can buy a printer that doesn't give off ozone. Two choices are the Personal LaserWriter SC (\$1,999) and NT (\$3,299) from Apple, which the company claims give off only negligible amounts of ozone, if any. These printers use a spongy conductive material for toner transfer instead of a corona wire, so the ozone doesn't escape to the outside. Steve Ray, product marketing manager for Apple, says this toner transfer method also prints more consistently solid blacks and helps prevent streaking. Hewlett-Packard's \$1,495 LaserJet IIP uses a corona roller instead of a corona wire which, according to the company's engineers, absorbs the electric charge so the air isn't affected.

STEP 10: Protect yourself II: Don't use spray glue. You may pay only \$5 dollars for a can of spray glue, but the cost, in damage to your health and to the environment, is much more. As Adam Takessian, a San Diego designer, points out

Beware of ozone: Never sit next to your laser printer, especially if it runs all the time.

"It's a chlorofluorocarbon [CFC] propellant spray; CFCs destroy the ozone layer in the stratosphere. It also smells bad, and the fumes can make you sick." Takessian and his fellow employees have collectively banned spray glue at their studio.

Not all spray glues contain CFCs, but a better alternative in any case is hot wax. It's not only healthier, it has an advantage over spray glue strictly from an efficiency point of view. Takessian explains, "With hot wax you can place an item many times; with spray glue, you can only place it a few times before the glue dries and you have to spray more." A hot wax machine is less expensive in the long run than buying several cans of spray glue every month: a hand machine

that applies a strip one inch wide costs about \$50, and wax is cheap. While a full-size hot-wax machine will cost you about \$400-500, the hand machine is sufficient for the majority of publishing projects.

Your Role

Now that you know how easy it is to be environmentally correct, you have one more task: Educate your coworkers. You can start by showing them this article. ■

Pam Loman is editorial services director for ThePage, a visual guide to electronic publishing with the Macintosh.

Esprit Blends Fashion With Ecology

Esprit, a sportswear company located in San Francisco, California, is now making more than just a fashion statement. The company's spring 1990 catalog, reportedly the first by a major retailer to be printed on recycled paper, earned a Northern California Environmental Achievement in Business Award nomination. Esprit printed its fall 1990 catalog using recycled paper as well.

The day when Esprit switched to recycled paper is etched in the minds of publishers who place ads in the catalog. "The catalog is used by

we're trying to do," says Alexander. For each catalog (spring and fall), the company experimented with a different recycled paper; in both cases it consisted of 50 percent recycled content and at least 10 percent post-consumer waste. "Using post-consumer waste is the most environmentally sound way," said Alexander. "That way we're re-using what people have thrown away."

The production team knew that it would be hard to get the quality they were used to from

design themes, even when we were using virgin paper."

Dot gain at the printing press was the culprit. According to Hovey, "Recycled paper is much more absorbent than virgin paper, so the dot gain made the colors look flatter." To combat this, Hovey and team had the film separators do a new set of separations when they switched to recycled paper for the first catalog, and again for the second catalog when they used a different recycled stock.

The separators will adjust

used virgin paper. "It takes time, maybe about two or three hours, but it makes all the difference," says Hovey. "For instance, the Troy Book paper we're using in the catalog has a creamy-yellow tone, which can affect all the colors in the catalog. At the press check, we'll look at some sample pages and say, 'This color needs to be darker, or sharper.' Then, we know what we're getting and we can make adjustments on the spot." With these efforts, the catalog photos are now about as sharp as they want them to be.

Hovey suggests using a printer who has experience with recycled paper. If a manufacturer is somewhat inexperienced, make sure she or he will work with you during the run so you're assured of the quality you want.

The cost of switching to recycled paper was negligible. Because the company switched from a virgin coated stock to an uncoated recycled stock, the cost of paper was no higher. Esprit hasn't formally tracked customer response to the catalogs using recycled paper, but Alexander claims it's not necessary. "I have a drawer full of letters from customers who have thanked us for being kind to the environment," she says.

The production team is satisfied, too. "We have about 90 percent of the quality we want," said Hovey. "Of course, you can never reach total satisfaction no matter what kind of paper you use. We will learn as we go along."—Pam Loman



Esprit was one of the first major retailers to print a catalog on recycled paper.

recycled paper, but were challenged by the prospect of being the first to try it for a catalog. As they expanded the experience gained on the first catalog helped improve the second. "In the first catalog, we definitely lost some detail. I remember seeing a sweater where the details just went blah!" says Joe Hovey, senior production coordinator. "But the flatness of the colors played up the moody, grainy look that's been one of our

the line screen for the particular paper you're using, and that helps control color quality," said Hovey. "I also recommend asking for proofs on the actual paper stock you'll use to print the final product," he said. "It won't show you exactly what the colors will look like, but it will be close to what you'll see in the end."

Another strategy to ensure quality is an on-site press check, which is a step Hovey didn't have to take when they

Environmental Resources Guide

RECYCLED PAPER

Conservatree Paper Company,
250 Lombard Street, San
Francisco, CA 94111; (800)
522-9200.

E. H. Pechan & Associates,
Inc., 5537 Hempstead Way,
Springfield, VA 22151,
Attention: Recycled Paper;
(703) 941-4452.

PUBLICATIONS

"Using Recycled Paper: Facts
for Business," first in *The
Informed Desktop Publisher
Series*. Send \$5 to BT&T
Associates, 710 North Tioga
Street, Ithaca, NY 14850.

*Buzzworm: The Environmental
Journal*, 2305 Canyon Blvd.,
Ste. 206, Boulder, CO
80302; (303) 442-1969.

Conscious Choice, P.O. Box
1443J, Chicago, IL 60614.

*Conservatree's
Environmentally Sound Paper
(ESP) News*, Conservatree
Paper Company, 250
Lombard Street, San
Francisco, CA 94111;
(800) 522-9200.

*Garbage, The Practical
Journal for the Environment*,
P.O. Box 2886, Boulder, CO
80322-2886; (800) 274-9909.

Green Marketing Report,
Business Publishers, 951
Pershing Drive, Silver Spring,
MD 20910-4464;
(301) 587-6300.

Greenpeace Magazine, and
*The Greenpeace Guide to
Paper* (\$3 per copy), 1436 U
St., N.W., Washington, D.C.
20009; (202) 462-1177.

ORGANIZATIONS

American Soybean
Association, 540 Maryville
Centre Drive, Ste. 400, St.
Louis, MO 63141;
(314) 576-1770.

Inter-Association Council for
Printing and Publishing Paper
Recycling, Graphic
Communications Association
(GCA), 100 Dalingerfield Rd.,
Alexandria, VA 22314;
(703) 519-8160.

International Computer
Products Remanufacturing
Association, 921 S.W.

Morrison, Ste. 509B, Portland,
OR 97205; (503) 222-3215.

National Office-Paper
Recycling Project (managed
by the U.S. Conference of
Mayors): Roger P. Hoffman,
Green Bay Packaging, Inc.,
P.O. Box 19017, Green Bay,
WI, 54307-9017; (414) 493-
5058; Arthur J. Zuckerman,
Xerox Corp., Xerox Square,
Rochester, NY 14644; (716)
423-4205; Phyllis Liebman,
IBM Corp., 700 New Circle
Rd., Lexington, KY 40511;
(606) 232-4754.

MANUFACTURERS AND MAIL-ORDER COMPANIES

Apple Computer Customer
Relations, 20525 Mariani
Ave., Cupertino, CA 95014;
(408) 996-1010.

Bitstream, Inc., 215 First St.,
Cambridge, MA 02142;
(800) 522-3668, (617)
497-6222.

Canon U.S.A., Attn: Consumer
Affairs Dept., 1 Canon Plaza,
Lake Success, NY 11042;
(800) 962-2708.

CE Software, 1854 Fuller
Road, P.O. Box 65580, West
Des Moines, IA 50265;
(800) 523-7638.

Hewlett-Packard Corp.,
19310 Pruneridge Ave.,
Cupertino, CA 95014;
(800) 752-0900.

Laser's Edge, 201 S. 23rd St.,
Fairfield, IA 52556;
(800) 685-8088, (515)
472-7850.

Legend Communications, Inc.,
54 Rosedale Avenue West,
Brampton, ON, Canada L6Y
1K1; (416) 450-1010.

MacConnection, 14 Mill St.,
Marlow, NH 03456; (800)
334-4444, (603) 446-7711.

MacWarehouse, 1690 Oak
St., P.O. Box 1579, Lakewood,
NJ 08701; (800) 255-6227
(201) 367-6440.

PCConnection, 5 Mill St.,
Marlow, NH 03456;
(800) 243-8088.

Tiger Warehouse, 800 S.W.
37th Ave., #765, Miami, FL
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