Copyright Laws and Y2K Maintenance

Cem Kaner, J.D., Ph.D.
David Pels

Cem Kaner is an attorney who focuses on the law of software quality and is also a software quality consultant. He is the senior author of *Testing Computer Software*.

David Pels manages sales administration and customer support for the diagnostics division of an automotive equipment manufacturer.

Kaner and Pels are the authors of *Bad Software: A Consumer Protection Guide* (John Wiley & Sons, in Press).

Year 2000 problems are forcing many companies to upgrade the software that they use in-house. Many of them are asking their technical staff for guidance. You might be consulted directly, you might be chosen to head a conversion project, or you might sit on a committee that is dealing, company-wide, with Y2K issues. Alternatively, you might be involved in upgrading the systems that your department uses every day, such as (to name just a few) telephone switching, voice mail, call tracking, and problem reporting software.

You might want to retain Y2K maintenance specialists to help with these upgrades. The advantage of working with these people is that they come with special tools and a lot of knowledge of turn-of-the-century-related bugs. The disadvantage is that if you structure the relationship incorrectly, you might violate the copyright of the company that licensed the software to you that you are about to modify.

Similarly, if you are about to help another company (or another division of your company) upgrade software that it is using (but it's not the creator of the software and you're not the licensor), then you should exercise legal caution because you might unintentionally violate the copyright of the licensor of that software.

The Legal Situation

Copyrights are governed by the Copyright Act. Great effort has gone into the Copyright Act to balance the rights of publishers and users of information (including software). Under Section 117 of the Copyright Act,

"It is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

"(1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program . . ."
There is no question that modifying (adapting) a program to fix a defect is an essential step in the utilization of it and therefore Section 117 permits making temporary copies of the program in the process of fixing it.

Despite Section 117, there have been problems with software that is licensed, rather than sold. The case of MAI Systems Corp. v. Peak Computer, Inc. provides an example (see United States Court of Appeals of the 9th Circuit, 1993, Federal Reporter, 2nd Series, vol. 991, p. 511). MAI manufactured computers, wrote software to run them, and provided support services. Peak was a California-based independent service organization (ISO), that maintained computers for its clients. To service an MAI computer, Peak would come to the client's site, boot the computer, read diagnostic codes, run more advanced diagnostics that came with the computer, and then do what was necessary.

MAI's license specified that "Customer may use the Software . . . solely to fulfill Customer's own internal information processing needs . . . Licensee may authorize not more than three (3) of its bona fide employees to utilize the diagnostics."

Even though Peak was working at the customer's site, at the request of the customer, running software licensed to the customer, and MAI supplied this software to the customer specifically to be run on this computer, Peak was a contractor, not an employee of the customer. The court held that when Peak booted the operating system and diagnostics, it made a copy of those programs in the computer's memory. It then ruled that Peak's use of the software was a violation of the terms of MAI's license, and was therefore a copyright infringement.

The MAI case was surprising and was widely criticized. (For recent criticism, see L.T. Nuara, H.P. Benard, & D.K. Rydberg, "Year 2000: Problem or Opportunity?" in C.L. Kerr (Ed.) Understanding, Preventing and Litigating Year 2000 Issues, Practicing Law Institute, 1998.) There was (and still is) some belief that few courts outside of the 9th Circuit (which includes the western states, such as Washington and California) would follow this decision. So a flock of small ISOs sued MAI in Virginia, claiming that MAI was engaging in anticompetitive behavior by blocking ISOs from servicing its computers (Advanced Computer Services of Michigan et al. v. MAI Systems Corp., United States District Court for the Eastern District of Virginia, 1994, Federal Supplement, vol. 845, p. 356.) They lost. The court ruled that they were violating MAI's copyright by running the software that came with the MAI machines.

The 9th Circuit reached essentially the same decision again in the case of Triad Systems Corp. v. Southeastern Express Company (United States Court of Appeals of the 9th Circuit, 1993, Federal Reporter, 3rd Series, vol. 64, p. 1330). In this case, Southeastern Express was the ISO. It was allowed to service software that Triad had sold but not copies that Triad had licensed. (Triad operated both ways, at different times.)

We're not sure that the 9th Circuit has interpreted the law correctly. For example, in the case of Computer Associates v. State Street Bank & Trust, Judge Keeton (whose knowledge of copyright law is well respected) wrote that it's not a violation of the Copyright Act to run a program. The copy made in RAM is too short-lived to meet the definition of a "copy" in the Act: "I find that no copies are being made by State Street of the copyrighted programs, except such ephemeral copies as are necessary to the operation of the program on the Bank's computer. That use is permitted by the copyright laws." (United States District Court for the District of Massachusetts, 1992, Federal Supplement, vol. 789, p. 470).

We agree with Judge Keeton. If the MAI interpretation was correct, then all of the caching of web pages and downloaded programs, throughout the Internet, is the kind of "copying" that would get everyone on the Net into huge copyright-related trouble. The Constitutional basis for the Copyright Act is an authorization to provide authors with rewards in order to promote creative expression. Severe interference with a communications medium as vibrant as the Net would violate longstanding federal (constitutionally-based) policy.

Additionally, other courts have held that license restrictions on reverse engineering and adaptation of software (when the adaptation won't be used to compete with the original) are unenforceable. (For example, Vault Corp. v. Quaid Software, United States Court of Appeals for the 5th Circuit, 1988, Federal
Thus, as we move through the largest software maintenance effort in American history, the law is unclear as to whether customers can retain third party service organizations to upgrade their software or not. What is clear is that some companies have been very aggressive about protecting their service contracts, and in some parts of the country this aggressiveness is, for the moment, paying off in court.

**What To Do**

If you are the licensee (the company that is trying to fix software that it obtained under a license), then we recommend that you read (or have your corporate counsel read) the license agreements for each piece of software that you will upgrade. If the license appears to restrict you from retaining an ISO, then you might consider the following tactics:

- **Get the licensor's permission.** The company might be overloaded with Y2K service business and delighted to let you find help somewhere else.

- **Demand the licensor's permission.** If the licensor doesn't want to grant you permission to use an ISO, your attorney might convince it that your company can make out a good claim for breach of contract (or some other lawsuit-worthy misconduct) and that your company is so upset with the Y2K defects in the code that you are seriously considering a lawsuit. But you'll graciously back off if the licensor will let you use an ISO to help you sort out the problem.

- **Payroll the ISO through the licensor.** This gets you the licensor's blessing and the ISO's expertise. But it costs some extra money.

- **Hire the ISO's staff.** This would satisfy the restriction contained in licenses like MAI's, because now the maintenance would be done by your "bona fide employees." This tactic would completely satisfy some licenses and it would put you in a more defensible position in court for a wide range of other cases.

Whatever deal you make with the licensor, be prepared to face a licensee who demands reassurance on this issue when negotiating a contract with you.

If you are an ISO then you should take care that you don't start doing work on a system that you are forbidden to service. (NOTE: you might not think that you're an ISO, but your division's legal situation is probably the same as an ISO's if you are providing help to a separately incorporated division of your company).

- **Caution: Some ISO's are satisfied by reading the license agreement.** We aren't sure that this is always the wise course. The licensee (your client) might not give you all the information, including all amendments and updates to the license agreement. And you might not fully understand the fine details, which might have been discussed or explained in other memos. The information that you don't receive might be critical.

- **Ask for written assurance from the licensee that your work will be lawful.** The licensee is in a better position than anyone else to know the terms of the licenses that it has signed.

- **Ask for an indemnification from the licensee.** This is a guarantee by the licensee that you can lawfully modify the software. If you are sued by the licensor for copyright infringement, the licensee will pay all of your legal expenses and any amount that you lose if you go to trial. This is a common contract clause in situations in which one person provides a second person with material that might have copyright-related issues. The provider (who knows the origin of the material) guarantees its safety to the receiver.
Whether you are the licensee or the ISO, you should consult with your attorney on this issue. This is a subtle and changing area of the law, and not one that you want to have haunting you as you near completion of a major Y2K remediation effort.