

the means used to create them, and the names of the program's present or prospective purchasers.¹ Presently before me is the defendants' objection to Magistrate Judge Barry's Report & Recommendation ("R & R") that I grant plaintiffs' requested relief in full.

I. FACTS

In 1985, Media Touch hired Professional Computer Group to create the software for a control unit and display that would allow radio station disc jockeys to control, schedule and play input from a variety of sources simply by using a control console on their desks. The control and display programs, together called "OpLog", were copyrighted in mid-December 1985.² Although Professional Computer Group authored the programs, it assigned its rights to Media Touch in March 1986 and the assignment was recorded with the Register of Copyrights.

Later in 1986, Media Touch hired Norman Buck, one of

¹Plaintiffs allege that similar relief is warranted under N.H. Rev. Stat. Ann. 350-B, the Uniform Trade Secrets Act, and under N.H. Rev. Stat. Ann. 358-A, which authorizes injunctive relief to prevent or remedy injuries caused by unfair or deceptive trade practices.

²OpLog was first sold and installed at WEEI in Boston, Massachusetts, in 1986.

OpLog's designers at Professional Computer Group, as a full-time employee.³ Buck's employment with Media Touch was initially governed by a two-year written employment agreement. The agreement contained a non-compete clause effective "during the employment period and for one year after the termination for any reason of the Employee's employment with the Company under this Agreement." Buck also signed a document entitled Exhibit A - Invention and Non-Disclosure Agreement. This agreement prohibited Buck from ever disclosing any of Media Touch's trade secrets or proprietary and/or confidential information.

While at Media Touch, Buck's duties entailed installing, servicing and maintaining OpLog for Media Touch's customers. In late 1986 or early 1987, after Ranson became Media Touch's European distributor, Buck would also frequently travel to Europe to perform similar duties relating to the OpLog programs that Ranson sold to European radio stations. To perform these duties, he retained a copy of OpLog's original source code, as well as copies of each customer's customized version of the code.

In addition to his more routine duties, Buck was very

³In a "works for hire" statement signed in March 1987, Buck acknowledged that all copyrights to OpLog belonged to Professional Computer Group.

involved in Media Touch's development of "Midas", a computer program that would digitize and store analog sound. Media Touch designed the program to be controlled by OpLog and hoped to sell the two programs as a package. To speed the development process, Buck incorporated portions of OpLog's source code into Midas to create its touch screen and serial port interfaces and its screen and database libraries. Midas was first demonstrated at a Boston trade show in September 1990.⁴

Early in October of the same year, unbeknownst to Media Touch, Ranson hired Buck to create Cartouche, a digital audio storage device that could be controlled by OpLog and would compete directly⁵ with Midas. Ranson hoped to sell the product to European radio stations that would, or already had, purchased OpLog. When Buck performed upgrades and maintenance on OpLog in Europe, Ranson's employees referred to Buck as "Norm." When Buck worked on Cartouche, these employees called him "Bob". Back in

⁴Media Touch copyrighted Midas on July 8, 1993.

⁵Defendants argue that they did not develop Cartouche to compete directly with Midas, but to replace "DAMMS", the hardware-based device that radio stations had previously used to digitalize and store analog sound. Moreover, they contend that each time OpLog and Cartouche were sold together, Media Touch benefitted. While defendants' assertions may be true, the fact of the matter is that Cartouche and Midas are both designed to fill the same niche and thus cannot help but directly compete.

the United States, Buck worked simultaneously for Media Touch on Midas and for Ranson on Cartouche.

Cartouche was completed sometime in 1991. Shortly thereafter, Ranson gave a demonstration of the new product to Media Touch. Although Connell was angered by Ranson's development of a competing product, he made the best of a bad situation by (i) authorizing Buck to create an interface between Cartouche and OpLog and (ii) allowing Ranson to sell the two products as a package in Europe. Cartouche has since been installed in at least six radio stations in Europe. In addition to its European sales, Ranson is presently attempting to sell Cartouche to radio stations in the United States.

Connell and Media Touch did not find out about Buck's secret work for Ranson until after he left Media Touch in February 1992. In May, Frank Zagorski, a disgruntled Ranson computer programmer who had worked with Buck, called Connell and asked if he knew about Buck and Ranson's employment relationship. He also told Connell that Buck had incorporated portions of OpLog's source code into Cartouche. Zagorski explained that Ranson had given him the Cartouche source code so that he could create a key pad interface for the program. While working with this source code, he noticed that it included portions of OpLog's source code

relating to the touch screen, database and serial port interfaces. He knew that these portions of the code came from OpLog because he was familiar with OpLog's source code (Buck had loaded the code into Ranson's file server) and because one portion of the code contained a Professional Computer Group heading and copyright legend.

Immediately after being informed of these facts, Connell terminated Media Touch's distribution agreement with Ranson. He also referred the entire matter to the FBI. On July 30, 1992, Connell simultaneously filed this suit and requested preliminary injunctive relief.

Days prior to the preliminary injunction hearing, Zagorski flew to the United States. When he arrived, he called a Swiss radio station that used Cartouche and downloaded a "file dump" of the program's executable code via modem. This contained text messages referring to OpLog as well as other messages using word choices, capitalization, punctuation and other characteristics that were identical to text messages that were a part of OpLog's source code. The executable code from this file dump also included a text message referring to a "light pen" feature that had been included in an early version of OpLog but that was of no relevance to Cartouche. A Media Touch software engineer, David

Lyon, made a hard copy of the file dump and plaintiffs introduced this hard copy during the waning moments of the preliminary injunction hearing.

After the hearing, Magistrate Judge Barry issued his recommendation that I grant plaintiffs' requested relief in full. The recommendation indicated that Judge Barry placed great weight on the file dump printout. Defendants timely objected to Judge Barry's recommendation, alleging that the printout has no probative value and had been introduced too late in the hearing for adequate rebuttal. Defendants also allege that the recommendation contained several factual inaccuracies and erroneous legal conclusions. I review the matter de novo. Fed. R. Civ. P. 72(b); 28 U.S.C.A. § 636(b)(1)(C).

II. DISCUSSION

Plaintiffs' primary claim is copyright infringement. I find that plaintiffs are entitled to preliminary injunctive relief on this claim, and consequently do not address their state law causes of action. My analysis begins with the preliminary injunction standard recently reaffirmed by the First Circuit in Gately v. Massachusetts, 2 F.3d 1221, 1224-25 (1993).

A. The Preliminary Injunction Standard

In deciding whether to grant a preliminary injunction, a district court must consider four factors:

(1) the likelihood of the movant's success on the merits; (2) the potential for irreparable harm to the movant; (3) a balancing of the relevant equities, *i.e.*, the "hardship to the nonmovant if the restrainer issues as contrasted with the hardship to the movant if interim relief is withheld," Narragansett Indian Tribe v. Guilbert, 934 F.2d 4, 5 (1st Cir. 1991); and (4) the effect on the public interest of a grant or denial of the injunction.

Gately, 2 F.3d at 1224. Although each factor is significant, the "sine qua non of [the preliminary injunction standard] is whether the plaintiffs are likely to succeed on the merits." Id. at 1225 (quoting Weaver v. Henderson, 984 F.2d 11, 12 (1st Cir. 1993)) (brackets in original). Accordingly, I first analyze the merits of plaintiffs' copyright infringement claim and then address the other three factors seriatim.

1. Likelihood of Success on the Merits

To establish copyright infringement, plaintiffs must prove two elements: "(1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original." Feist Publications v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991). See also Gamma Audio & Video, Inc. v. Ean-Chea, 11 F.3d 1106, 1114 (1st Cir. 1994). Here, defendants do not contest that

OpLog and Midas are subject to valid copyrights owned by Media Touch. Moreover, it is uncontestable that the literal elements of computer programs -- their source and object codes -- are copyrightable. Computer Associates International v. Altai, Inc., 982 F.2d 693, 702 (2d Cir. 1992); Whelan Assocs., Inc. v. Jaslow Dental Lab, Inc. 797 F.2d 1222, 1233 (3d Cir. 1986), cert. denied, 479 U.S. 1031 (1987). The question thus is whether defendants copied portions of OpLog's source code into Cartouche. I find that there is a substantial likelihood that plaintiffs will prove this fact at trial.

Usually, a plaintiff must prove copying by showing that the defendant had access to the plaintiff's copyrighted work and that defendant's work is "substantially similar" to this material. Gamma Audio, 11 F.3d at 1115.

[P]roof by direct evidence of copying is generally not possible since the actual act of copying is rarely witnessed or recorded. Normally, there is no physical proof of copying other than the offending object itself.

Id. at 1114 (quoting Concrete Machinery Co. v. Classic Lawn Ornaments, 843 F.2d 600, 605 (1st Cir. 1988)). In this case, plaintiffs rely on both direct and circumstantial evidence to prove their copyright infringement claim.

Frank Zagorski testified during the preliminary injunction

hearing that while developing a key pad interface for Cartouche, he came across portions of proprietary OpLog code that had been incorporated into Cartouche to establish its touch screen, database and serial port interfaces. Zagorski further testified that Cartouche's source code still retained the Professional Computer Group heading and copyright legend indicating that it was OpLog source code. This observation is significant direct evidence of copying.⁶

Zagorski's testimony is buttressed by the printout of the Cartouche "file dump" that plaintiffs had Zagorski download by modem from a Swiss radio station. This printout contained a variety of text messages with phrasing that was identical to phrasing of text messages included in OpLog's source code.⁷ Most

⁶Buck and Ranson both deny that any OpLog source code was incorporated into Cartouche and insinuate that perhaps the heading that Zagorski saw was not from OpLog, but from an "off-the-shelf" portion of computer code purchased from a third-party vendor. Alternatively, they challenge Zagorski's credibility by claiming that he is a disgruntled former employee who threatened to retaliate when Ranson fired him.

⁷Source code is a set of instructions written in one of several high level computer languages such as Cobol, Fortran, 'C++' Basic, or Pascal. Computer programs are generally developed using one of these high-level languages. Before a program written in source code can operate, it must be translated into machine language. This translation process is accomplished through the use of computer programs known as compilers and assemblers. Once source code has been translated into machine

tellingly, one such reference dealt with a "light pen" feature that had been included in OpLog's source code but whose development had subsequently been abandoned. The light pen reference has no relevance to Cartouche, and defendants provide no satisfactory explanation for its presence in the file dump.

Faced with the above evidence, defendants argue that direct evidence of copying can only be provided through side-by-side comparison of the two source codes. However, Dan Lyon, an expert familiar with OpLog source code, stated that the previously described text messages in Cartouche's executable code correspond

language, it is known as object code. Donald D. Spenser, Computer Dictionary at 265, 364 (4th ed. 1993); see also, Jerry M. Rosenberg, Dictionary of Computers, Data Processing and Telecommunications at 355, 490 (1984).

A source program cannot run until the program is translated into object code, certain memory assignments are designated and the program is linked with other object code in various other computer files. When this process is accomplished, the program is considered to be an executable program. If an executable program is "dumped" and printed, the printout will depict the program in executable code. This code contains the object code as well as the linkages and assignments that are required to execute the program. Rosenberg at 185; Anthony Ralston and Edwin Reilly, Encyclopedia of Computer Science, 962 (3rd ed. 1993).

In addition to the machine language portion of the executable code, the file dump also contained certain text messages (sometimes known as text strings). These text messages would appear in the same form in the program's source code.

directly to the text references in OpLog's source code.⁸ Moreover, while defendants extol the virtues of direct comparison, they have chosen not to take the most obvious step to vouchsafe Cartouche's originality -- produce a copy of Cartouche source code for comparison. Since defendants have left this obvious void in the evidence that they could easily have filled, I assign little weight to their suggestion that a side-by-side comparison of the two program's source codes would establish their innocence. See Marquis Theatre Corp. v. Condado Mini Cinema, 846 F.2d 86, 89 (1st Cir. 1988).

In summary, while I recognize that defendants have attempted to explain each piece of evidence plaintiffs rely on to support their claim, I am unpersuaded by defendants' explanations. Given Zagorski's testimony, the file dump printout and supporting expert testimony, and defendants' failure to produce a copy of Cartouche's source code, I find that there is a substantial likelihood that plaintiffs will prevail on the merits of their copyright infringement claim. See, e.g., Altai, 982 F.2d at 699-700, 702.

⁸Defendants provided two expert affidavits indicating that the file dump showed no evidence of source code copying from OpLog to Cartouche. However, unlike Lyon, these experts have no familiarity with OpLog's source code.

2. Irreparable Harm

Irreparable harm is presumed where plaintiffs are likely to succeed on the merits of their copyright infringement claims. Concrete Machinery Co., 843 F.2d at 611. As a result, plaintiffs need not introduce evidence of irreparable harm in order to obtain injunctive relief.⁹

Defendants, however, argue that two facts rebut this presumption: (1) plaintiffs waited 2 1/2 years after first seeing a Cartouche demonstration to bring this suit, and (2) plaintiffs not only accepted royalties on Ranson's package sales of OpLog and Cartouche during this period, but expressly authorized Buck to create an interface between the two programs. Defendants thus argue that plaintiffs acquiesced in the infringement of their copyrights, or at minimum, that their delay in bringing this suit demonstrates a lack of immediate irreparable harm. I disagree.

The simple response to defendants' contentions is that the incidents they point to occurred before Connell was notified that Buck had been secretly working with Ranson and that

⁹While plaintiffs were not required to introduce evidence concerning this element of the preliminary injunction standard, Connell has testified as to the negative effects that the Cartouche sales have had on Midas' ability to get a foothold in the digital audio market in Europe and now the United States, even with radio stations that had previously purchased OpLog.

Cartouche had included bootlegged portions of OpLog's source code. Prior to that time, Connell merely thought that Cartouche was a legitimate competitor in the digital audio storage field. As a result, what defendants interpret as undue delay and acquiescence to copyright infringement were simply Media Touch's attempts to salvage some profit from an increasingly dismal business situation. In fact, as soon as Connell found out about the alleged copyright infringement, he immediately severed all relations with Ranson and referred the matter to the FBI. Admittedly, plaintiffs did not file this suit until five months after finding out about the alleged infringement of their copyrighted source code. However, given that the sine qua non of the preliminary injunction standard is likelihood of success on the merits, a mere failure to choose the most effective or expeditious means of preserving one's rights does not necessarily preclude an award of preliminary injunctive relief.

3. Balancing of the Equities

Defendants contend that "Cartouche has become an important part of Ranson's family of products" and that granting the relief plaintiffs' request would "cripple" Ranson and "very likely lead to its demise." Because plaintiffs would not suffer similarly crippling harm if their request for injunctive relief were

denied, defendants contend that the balancing of the equities is in their favor. This argument is meritless.

The First Circuit has stated relatively recently that "[w]here the only hardship that the defendant will suffer is lost profits from an activity which has been shown likely to be infringing", this defense "merits little equitable consideration" in the balance of hardships that a district court must make. Concrete Machinery Co., 843 F.2d at 612. This is true even when the "business is exclusively based on [the] infringing activity and . . . would be virtually destroyed by a preliminary injunction." Id. (emphasis added). Defendants thus cannot insulate themselves from preliminary injunctive relief merely because their infringing activity has become their most important business. Id.

4. The Public Interest

"Since Congress has elected to grant certain exclusive rights to the owner of a copyright, it is virtually axiomatic that the public interest can only be served by upholding copyright protections and, correspondingly, preventing misappropriation of skills, creative energies, and resources which are invested in the protected work." Id. (quoting Apple Computer Inc, v. Franklin Computer Corp., 714 F.2d 1240, 1255 (3d

Cir. 1983) (quoting Klitzner Indus. v. H.K. Janus & Co., 535 F. Supp. 1249, 1259-60 (E.D.Pa. 1982))). In copyright cases, public policy thus is rarely a genuine issue if the plaintiff has established a likelihood of success on the merits. Id. This case is governed by the general rule.

B. The Requested Relief

Plaintiffs request that defendants not only be enjoined from further infringement of their copyrighted computer code, but that I order defendants to "deliver up" for impoundment and later destruction all infringing copies, means of making such copies and all names of persons solicited in regards to the infringing software. I find this latter step unnecessary to protect plaintiffs' rights -- the contempt proceedings that would attend a violation of this order are enough incentive for defendants to refrain from further pre-trial infringement of plaintiffs' copyrights. The relief I grant is therefore limited to enjoining defendants from further manufacture, reproduction, adaption, use, sale, transfer, lease or distribution of plaintiffs' copyrighted materials.

As a final matter, defendants have objected to Magistrate Judge Barry's failure to require plaintiffs to post a bond as security for "payment of such costs and damages as may be

incurred or suffered [by defendants if they are] found to have been wrongfully enjoined. . . ." Fed. R. Civ. P. 65(c). While the language of 17 U.S.C. § 502(a) is more permissive than Rule 65(c), compare § 502(a) (district courts may "grant temporary and final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright") with Fed. R. Civ. P. 65(c) ("no . . . preliminary injunction shall issue except upon the giving of security"), I agree that a bond may be appropriate in this case. See Crowly v. Local No. 82, 679 F.2d 978, 1000 (1st Cir. 1982), rev. on other grounds, 467 U.S. 526, reh'g denied, 468 U.S. 1224 (1984); Flag Fables Inc. v. Jean Ann's Country Flags & Crafts, Inc., 730 F. Supp. 1165, 1176 (D. Mass. 1990). However, defendants have given me no information upon which to determine the amount of the bond. I will therefore hold a hearing on April 18, 1994 at 9:00 a.m. to determine the appropriateness and amount of any bond that plaintiffs might be required to post. Finally, given that the posting of a bond is "not a jurisdictional prerequisite to the validity of a preliminary injunction." Aoude v. Mobil Oil Corp., 862 F.2d 890, 896 (1st Cir. 1989), the relief granted by this Order becomes effective as of the date the Order is issued.

III. CONCLUSION

For the foregoing reasons, I adopt Magistrate Barry's Recommendation (document no. 19) to the extent not herein amended and grant plaintiffs' request for preliminary injunctive relief (document no. 2). Ranson, its officers, directors, employees, agents, and all other persons acting in concert with Ranson are enjoined during the pendency of this action from any further manufacture, reproduction, adaptation, use, sale, transfer, lease or distribution of the Cartouche program or any other products containing portions of OpLog's source code.

SO ORDERED.

Paul Barbadoro
United States District Judge

March 31, 1994

cc: Kevin M. Fitzgerald, Esq.
George C. Bruno, Esq.
Arthur G. Greene, Esq.