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Lotus v. Borland [4]

E X E C U T I V E O F F I C E O F T H E P R E S I D E N T

30-Nov-1995 11:38am

TO: Jack M. Quinn
TO: Elena Kagan

FROM: Kathleen M. Wallman
Office of the Counsel

SUBJECT: copyright case

Jack & Elena,

1. I spoke with Tom O'Donnell about working with NEC. He has heard from Ginger about the case and plans to pass the matter on to Bo.

2. I've asked Sheri to schedule a meeting with the Lotus lawyers from Swidler & Berlin for tomorrow, if possible, since the brief is due on 12/8.

3. Jack, Elena has talked with Joel Klein about the matter; they are sending over copies of their briefs (the one(s) already filed in 1st Cir. and presumably a draft of what they want to file in S. Ct.) I asked Elena to give Joel a heads up that this could be something we would want to raise in the meeting with Jamie, et al.

KW

E X E C U T I V E O F F I C E O F T H E P R E S I D E N T

30-Nov-1995 11:18am

TO: Kathleen M. Wallman

FROM: Elena Kagan
Office of the Counsel

SUBJECT: copyright etc.

Kathy:
1. I talked to Joel Klein yesterday about this copyright issue and should be getting briefs today. I will send copies to you when they come. Our brief is due Decmber 8. The current DOJ draft, in support of respondents, argues that the "command hierarchy" at issue is noncopyrightable, but on different grounds than the First Circuit relied upon. Specifically, the draft argues that the hierarchy (1) is not a "method of operation," as the First Circuit found, but (2) is an idea and hence noncopyrightable. Klein says that Commerce wants the brief to say only that the command hierarchy is not a method of operation (dropping the second part of the argument entirely), but he says this is impossible given that we are supporting the respondents. In Klein's view, the choice is the draft brief or nothing. Klein also says he does not understand Commerce's position as a substantive matter: he says it comes down to a per se rule of backing the party claiming infringement, even when in the particular circumstances, there are no policy reasons for doing so. Klein said Days is intending to hold a meeting on this whole question sometime this week. I told him that Jack might rase this issue with Jamie and John, and he said he would let them know.
2. Thanks for your voice-mail on the timber meeting: I must admit that it pained me to miss it. The "timber group" is currently working on a memo discussing ways of gaining leverage for our legislative initiative (e.g., slowing down salvage sales unless legislation is passed). At least some of the things proposed raise significant legal problems, which of course makes them less effective as leverage devices. (If, for example, a court is never going to let you suspend salvage sales, it doesn't much matter that you've threatened to do so.) I should be getting a new draft of the memo today; if it's the final version (or seems anywhere close to completion), I'll send over a copy to you and Jack. I take it that Panetta wants to talk to some of the key congressional players within the next day or two and that a team of people will then go to the Hill to engage in more detailed discussions. If Jack wants a representative at the Hill meetings (which I self-interestedly think he should), he perhaps should mention this to Harold; otherwise size constraints might keep me off the delegation.
3. On shutdown, Walter and I keep missing each other. I'll keep you posted.
Elena

Telecon - Joel Klein

- Ct granted cert
- Lotus brief - Nov 8
  - our brief - Dec 8 (amicus)
- Arg - Jan 8.

Lotus 1-2-3 spreadsheet
to op: command hierarchy
(400 wds)

Borland - essentially copied to achieve interoperability
→ That piece → its prog then could run macros on

Dis Ct - infringement
CA - reversed. Method of operation - broadscale exemption
(Bundin CMC) (policy driven)

Antitrust - strong sentiment, ~~anti-Lotus~~ The
more narrow view than 1st Cir
middle position "Idea" - because rules of the game
→ like a shorthand

copyright/PTO - will enhance piracy
have to enforce all poss. infringements.
JK - why command hierarchy
so worthy??

Our brief or nothing.
realpolitic.

not a method of op.
it's an idea

They want just Part 1
↓
But this is imposs.
We're bottom side!

Drew Days having mtg
this week

David Ogden will send me all
papers.

Kathy -

Heads up
Jack may want to ask abt in weekly mtg
Thursday 2:00.

...TION FILED
JUN 7 1995

No. 94-2003

IN THE
Supreme Court of the United States
OCTOBER TERM, 1995

LOTUS DEVELOPMENT CORPORATION,

Petitioner,

v.

BORLAND INTERNATIONAL,

Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the First Circuit

MOTION OF INFORMATION TECHNOLOGY INDUSTRY COUNCIL FOR LEAVE TO FILE BRIEF *AMICUS CURIAE* IN SUPPORT OF THE PETITION FOR A WRIT OF CERTIORARI AND BRIEF *AMICUS CURIAE*

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July 7, 1995

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No. 94-2003

IN THE
SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1995

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MOTION OF INFORMATION TECHNOLOGY INDUSTRY COUNCIL FOR LEAVE TO FILE BRIEF AMICUS CURIAE IN SUPPORT OF THE PETITION FOR A WRIT OF CERTIORARI AND BRIEF AMICUS CURIAE

The Industry Technology Industry Council ("ITI") respectfully moves for leave to file the attached Brief *amicus curiae* in support of the Petition for a Writ of Certiorari. The consent of the attorney for the Respondent was requested but refused.

The interest of ITI in this case arises from its representation of the leading United States providers of information technology products and services. Most of its members author and publish computer programs to license in the open market. ITI's membership comprises a major segment of the United States economy. In 1992, their revenues were over $277 billion worldwide. They employ over one million people in the United States, a significant number of whom write computer programs. They also fund over 16% of all research and development in the United States, much of which involves authoring creative computer programs.

It is believed that the Brief which amicus curiae is requesting permission to file will contain a more complete description of the importance of the decision of the First Circuit for the software industry, a field which has been marked by rapid innovation, and in which the United States currently leads the world. Much of that innovation involves advances in the user interfaces, such as the decision tree hierarchy deemed unprotectable by the court of appeals. However, innovation and enhancement of the interface is critical to promoting the user friendliness of programs, and thus to the realization of the enormous efficiencies offered by the widespread distribution of personal computers to large numbers of non-technically trained people.

ITI believes that the Court's decision that user interfaces are unprotectable under 17 U.S.C. § 102(b), and that one may freely copy elements of a program interface designed by others, has significant implications for the degree of copyright protection to be afforded United States software in this country and other countries, and thus affects the international competitiveness of this industry. The Petition raises an important legal question that warrants review by the Court at this time.

Respectfully submitted,

_____

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July 7, 1995

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BRIEF OF AMICUS CURIAE INFORMATION TECHNOLOGY INDUSTRY COUNCIL IN SUPPORT OF THE PETITION FOR A WRIT OF CERTIORARI

INTEREST OF *AMICUS CURIAE*

The Industry Technology Industry Council ("ITI") submits this Brief as *amicus curiae* in support of the Petition for a Writ of Certiorari.

ITI represents the leading United States providers of information technology products and services. Most of its members author and publish computer programs to license in the open market. ITI's membership comprises a major segment of the United States economy. In 1992, their revenues were over $277 billion worldwide. They employ over one million people in the United States, a significant number of whom write computer programs. They also fund over 16% of all research and development in the United States, much of which involves authoring creative computer programs.

ITI submits this Brief *amicus curiae* in order to emphasize the importance of the decision of the First Circuit for the software industry, a field which has been marked by rapid innovation, and in which the United States currently leads the world. Much of that innovation involves advances in the user interfaces, such as the decision tree hierarchy deemed unprotectable by the court of appeals. However, innovation and enhancement of the interface is critical to promoting the user friendliness of programs, and thus to the realization of the enormous efficiencies offered by the widespread distribution of personal computers to large numbers of non-technically trained people. ITI believes that the Court's decision that user interfaces are unprotectable under 17 U.S.C. § 102(b), and that one may freely copy elements of a program interface designed by others, raises a critical legal question that warrants review by the Court at this time.

REASONS FOR GRANTING THE PETITION

The question whether the user interface of a software program may be copyrighted is a critical legal question of great practical significance for one of the most innovative and internationally competitive industries in the United States. This is an issue of law of broad applicability. Litigation about the copyrightability of user interfaces has been before the courts of appeals for several years and will continue to arise until this question is finally resolved by the Court. The issue is well framed for resolution in this case, because there is no factual dispute whether the respondent in fact copied petitioner's user interface. Further, the First Circuit has adopted an unambiguous rule that decision tree hierarchies in a user interface are not copyrightable as a matter of law under any circumstances.

There is a conflict in approach among the courts of appeals as to whether the user interface portion of a software program may be copyrighted. Software programs are sold in a national market. Further, programs are uniquely portable, in that they may be shipped from one end of the country to another in a few seconds over telephone lines, and software development efforts can readily be shifted from one location to another to take advantage of any disparities in legal rules. Authors of software cannot conduct their business efficiently under the current state of confusion, where there are different rules in different circuits as to the copyrightability of one of the most critical features of computer programs. The importance of this issue justifies granting certiorari at this time.

Finally, the rule adopted by the First Circuit will introduce uncertainty in the law and generate further litigation over software copyright issues. The court below held that the decision tree hierarchy of the user interface is not copyrightable under Section 102(b) of the Copyright Act, 17 U.S.C. § 102(b), because it constitutes a "method of operation", a set of instructions to a machine. But virtually every aspect of software, in both the user interface and other portions of the program, is an instruction to the computer. The distinction drawn by the First Circuit contains no limiting principle by which to differentiate which instructions in a program are copyrightable from those which are not. Accordingly, this rule gives little guidance to authors of software about the scope of their rights. And efforts to apply it are likely to result in much further litigation unless the Court resolves the issue at this time.

I. THIS CASE PRESENTS A LEGAL ISSUE OF GREAT PRACTICAL SIGNIFICANCE TO THE COMPUTER SOFTWARE INDUSTRY

The court of appeals has decided an important legal question that is of great significance to the computer software industry and warrants review by this Court. The question whether the user interface of a computer program is, as a matter of law, copyrightable subject matter is a recurrent legal issue that will continue to arise until finally resolved by this Court. Resolution of this issue is critical to the development of the software industry, both in the United States and internationally.

A. The user interface is one of the most important aspects of a computer program.

It is a shorthand expression for those elements of the program that permit its author to communicate with the user and that permit the user to communicate with the computer. A substantial degree of innovation and creativity are involved in determining how to design the user interface, with the goal of making it "user friendly" -- that is, to make it easier for users of different types of intelligence and experience to understand and utilize various features of the program. The design of the user interface has become increasingly important with the distribution of personal computers to large numbers of non-technically trained users. While the engineering efficiency of the actual applications remains an important technical attribute of a computer, there is a significant art involved in making a program accessible to non-engineers, so that large numbers of average citizens may take advantage of the enormous efficiencies offered by computer technology.

B. Software development is one of the most dynamic industries in the United States economy. United States companies are the acknowledged world leader in the development and marketing of software, especially for the off-the-shelf commercial software that has fueled the revolutionary growth in information technology.

Development of successful software in today's highly competitive market requires a substantial degree of creativity and a significant investment of capital. The software industry depends upon the intellectual property protection afforded by the copyright laws, both to create the incentives to encourage authors to develop new products and to prevent

others from copying the resulting software and improperly diverting the rewards. Denying copyright protection to the fruits of this intense research and development effort, including user interfaces that effectively communicate with large numbers of potential users, will have an adverse impact on this vital industry.

The Federal government has long recognized the importance of providing adequate copyright protection to authors of innovative computer programs. In 1976 and 1980, Congress amended the Copyright Act for the explicit purpose of providing greater copyright protection to computer programs, in order to stimulate greater innovation.[1] Since the mid-1980s, both Congress and the President have made sustained efforts to make certain that other countries, especially those in the Pacific Basin, respect copyrights on United States software and do not permit their citizens to pirate the work of this important domestic industry.

The most visible aspects of this program have been the investigations and actions taken by the United States under the "Special 301" provision of the Omnibus Trade and Competitiveness Act of 1988 (19 U.S.C. § 2412(b)(2)(A)). These intense bilateral activities have been complemented by the multilateral Uruguay Round Agreement on the Trade Related Aspects of Intellectual Property Rights, ratified by Congress in 1994 (Pub. L. No. 103-465, § 101(d)(15), 108 Stat. 4809, 4815). Under this Agreement, computer software will receive the highest level of copyright protection available.

[1] Pub. L. No. 94-553, 90 Stat. 2541 (1976); Pub. L. No. 96-517, 94 Stat. 3015 (1980).

Any elements of software that are not protected by copyright in this country are highly unlikely to be protected abroad. Stated another way, if aspects of a software program can be copied freely in this country, then they will be duplicated by software developers in other countries. Thus, the decision below, denying copyright protection as a matter of law to the decision tree hierarchy of a user interface of one popular program, will have significant repercussions on the degree of international competition faced by the United States software industry, in addition to its effects in the domestic market.

C. The First Circuit based its holding on the threshold ground that these elements of the program are not copyrightable because they constitute a "method of operation" -- that is, "the means by which users control and operate Lotus 1-2-3" (Pet. App. at 15a). The decision thus creates a legal question of general applicability, which extends well beyond this particular program. The question of whether the user interface of a program may be copied freely is a recurrent issue that is virtually certain to keep arising until the matter ultimately is resolved by this Court.[2]

The issue is well framed for resolution by the Court in this case.

--First, the most vexing question in copyright infringement cases, whether the defendant actually copied

[2] *See, e.g., Digital Communications Associates, Inc. v. Softklone Distributing Corp.*, 659 F. Supp. 449 (N.D. Ga. 1987); *Manufacturers Technologies, Inc. v. CAMS, Inc.*, 706 F. Supp. 984 (D. Conn. 1989); *Telemarketing Resources v. Symantec Corp.*, 12 U.S. P.Q.2d 1991 (1990); *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465 (9th Cir. 1992).

the expression of the plaintiff, is not at issue here. The First Circuit found that the case involves "Borland's deliberate, literal copying of the Lotus menu command hierarchy" (Pet. App. at 14a).

> "[W]e are faced only with whether the Louts menu command hierarchy is copyrightable subject matter in the first instance, for Borland concedes that Louts has a valid copyright in Lotus 1-2-3- as a whole and admits to factually copying the Lotus menu command hierarchy." (Id. at 11a (footnote omitted)).

--Second, the First Circuit has adopted a clearly defined legal position, that under no circumstances may copyright protection extend to the aspects of a user interface that "provide[] the means by which users control and operate" the program. (Id. at 15a). Accordingly, this case presents the underlying legal issue in a context that would facilitate its resolution by this Court.

II. THE DECISION OF THE FIRST CIRCUIT CONFLICTS WITH THE DECISIONS OF OTHER COURTS OF APPEALS.

The First Circuit stated that it was navigating in uncharted waters and that it knew of "no cases that deal with the copyrightability of a menu command hierarchy standing on its own (i.e., without other elements of the user interface, such as screen displays, in issue)." (Pet. App. 12a). At another point, however, the court acknowledged that its "holding that methods of operation are not limited to abstractions goes against" *Autoskill, Inc. v. National Educational Support Systems, Inc.*, 994 F.2d 1476 (10th Cir.), *cert. denied*, 114 S. Ct. 307 (1993). (Pet. App. 21a). The Petition discusses at some length the differences in the legal standard applied by the First Circuit and by other Circuits, based on the approach articulated in the Nimmer treatise. (Pet. at 23-26).[3]

We believe that there is a sufficient conflict in approach among the courts of appeals that, given the importance of the issue, justifies granting certiorari at this time. Computer software is sold in a single nationwide market. It is uniquely portable and could be transmitted from place to place electronically, in order to take advantage

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[3] D. Nimmer & M. Nimmer, 3 *Nimmer on Copyright*, § 13.03[F][1]. *See Computer Assoc. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992); *Engineering Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1344 (5th Cir. 1994)("if a best-selling program's interface were not copyrightable, competitors would be free to emulate the popular interface exactly so long as the underlying programs were not substantially similar. This cannot be the law.").

of differences in legal rules from jurisdiction to jurisdiction. Software development requires uniform national standards on the core legal issue of the standards that determine the degree of copyright protection available. This dynamic industry cannot function effectively if the legal rules governing copyrightability of critical aspects of programs differ from circuit to circuit.

Accordingly, the Court should grant certiorari to resolve the conflict among the circuits concerning the legal standards determining the protectability of user interfaces under the Copyright Act.

III. THE DECISION BELOW CREATES UNCERTAINTY ABOUT THE APPLICATION OF THE COPYRIGHT LAWS TO COMPUTER PROGRAMS.

The basis on which the First Circuit articulated its decision creates uncertainty about what elements, if any, of a computer program are copyrightable as a matter of law.

The court of appeals concluded that the menu command hierarchy of the user interface of this program is a "method of operation", which is not copyrightable pursuant to Section 102(b) of the Copyright Act. The court stated that a "method of operation" within the meaning of that provision "refers to the means by which a person operates something, whether it be a car, a food processor, or a computer". (Pet App. at 15a). It further reasoned that the "Lotus command hierarchy provides the means by which users control and operate Lotus 1-2-3". (Id.).

Virtually every aspect of a computer program is an instruction to a machine. Thus, almost every aspect of a program is potentially susceptible to being characterized as a "method of operation" under the First Circuit's opinion. Further, the court's rule contains no limiting principle by which to differentiate those aspects of a program that are copyrightable from those that are not protectable.

Unless the issue is resolved by this Court, the articulation of the legal standard adopted by the court of appeals will generate litigation concerning whether a particular instruction in a program is to be deemed a "means by which users control and operate" the program, which would not be protectable, as opposed to a means by which the consumer operates the computer, which presumably would still be protectable. This important legal question warrants review by this Court.

CONCLUSION

For the reasons set forth above, the petition for a writ of certiorari should be granted.

Respectfully submitted,
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MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE AND BRIEF AMICUS CURIAE OF INTELLECTUAL PROPERTY OWNERS IN SUPPORT OF PETITIONER

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IN THE
Supreme Court of the United States

OCTOBER TERM, 1995

No. 94-2003

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Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the First Circuit

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MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE

Intellectual Property Owners ("IPO"), a not-for-profit national organization founded in 1972 to represent the interests of owners of intellectual property in the United States, respectfully moves for leave to file the attached brief *amicus curiae* in this copyright infringement case. The consent of the attorney for petitioner has been obtained. The consent of the attorney for respondent was requested but refused.

Membership in IPO currently includes nearly one hundred large and mid-size companies and more than three hundred small businesses, universities, independent inventors, authors, executives and attorneys who own or are interested in patents, trademarks, copyrights and other intellectual property rights. Many of IPO's members develop computer software, either to compete in the worldwide software market, to complement the services they provide their customers, or to support other segments of their businesses.

Computer software development has become a key part of the United States economy. As with all copyright industries, it relies on appropriate levels of copyright protection for the works it creates. Because the market for computer programs is nationwide, the industry also relies on a measure of national uniformity in the application of copyright law. The First Circuit's decision below contravenes both of these important industry expectations.

The First Circuit has denied copyright protection to expression in one of the most creative elements of a computer program—the interface between the computer and the user—because that element performs a useful function. Even though copyright protection was conferred on authors of computer programs by Congress, the First Circuit's decision threatens to deny that protection to the expression of any program element that also performs a useful function.

The First Circuit's interpretation of Section 102(b) of the Copyright Act, on which it based its denial of copyright protection to the Lotus 1-2-3 user interface, conflicts with the interpretation of that provision in other circuits. This conflict subjects the works of computer program authors to flatly contradictory legal rules within a national marketplace.

This case is much more than a dispute between the parties: it is a clash between two fundamentally-opposed views of what protection the Copyright Act provides for computer software. That is why this case has attracted such extraordinary attention within the computer industry —as the ten briefs *amicus curiae* filed in the First Circuit attest.

One view embraces the Congress' decision that computer programs are literary works, to be afforded protection under copyright law in accordance with the same principles that apply to all copyrighted works. In this view, appropriate protection under copyright law fosters innovative competition in the software industry and fulfills the Constitutional dictate "to promote the progress of science and useful arts." U.S. Const. art. I, § 8, cl. 8. IPO holds this view, together with the greater part of the software industry.

The opposite view rejects Congress' decision that programs should be protected under copyright. By attempting to erect special judicial barriers to protection of computer programs, those expressing this view seek to curtail the protection that the copyright statute confers. They do so to foster imitative competition—competition founded on copying the fruits of others' innovative development.

As an association representing some of the leading innovators in the software industry, IPO is in a unique position to bring to the Court's attention the viewpoint of the major portion of the business sector that is most affected by the decision below. IPO is in a better position than the parties to assist the Court in assessing the important legal and policy implications of this case for the software industry and the copyright system. IPO's brief *amicus curiae* focuses on these considerations. IPO respectfully requests that its motion be granted and that its brief be considered by the Court in connection with the petitioner's request for the grant of a Writ of Certiorari.

Respectfully submitted,

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July 7, 1995

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IN THE
Supreme Court of the United States

OCTOBER TERM, 1995

No. 94-2003

LOTUS DEVELOPMENT CORPORATION,
Petitioner,
v.
BORLAND INTERNATIONAL, INC.,
Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the First Circuit

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BRIEF AMICUS CURIAE OF INTELLECTUAL PROPERTY OWNERS IN SUPPORT OF PETITIONER

INTEREST OF AMICUS CURIAE

Intellectual Property Owners ("IPO") files this *amicus curiae* brief in support of the petition of Lotus Development Corporation ("Lotus") for a writ of certiorari to review the ruling of the United States Court of Appeals for the First Circuit.

IPO is a national organization founded in 1972 and representing the interests of owners of intellectual property in the United States. Membership in IPO currently includes nearly one hundred large and mid-size companies and more than three hundred small businesses, universities, independent inventors, authors, executives and attorneys who own or are interested in patents, trademarks, copyrights and other intellectual property rights. Members of

the Board of Directors of the association are listed in the Appendix to this brief. IPO is a non-profit association exempt from federal income tax under Internal Revenue Code § 501(c)(6).

IPO has no interest in either of the parties to this appeal or in the outcome of this appeal, other than to the extent that it affects IPO members and the public generally.[1] Its interest is in the issues before the Court, which are of concern to IPO members, particularly those in the computer and software industries. Many of IPO's members develop computer software, either to compete in the worldwide software market, to complement the services they provide their customers, or to support other segments of their businesses.

This case presents critical issues concerning the extent to which copyright protects computer programs. The computer software industry has long relied on copyright law and the incentives it provides. Under the regime established by Congress that recognizes computer programs as literary works and accords them full protection under copyright law, software development has grown into one of the major American industries. At the same time, the United States has become the dominant force in the world software market, supplying approximately 75% of the nearly $70 billion worldwide packaged software market in 1993 and maintaining a positive balance of trade. U.S. Dept. of Commerce, *U.S. Global Trade Outlook 1995-2000: Toward the 21st Century* 134-35 (1995) ("Trade Outlook"). From 1991 to 1994 the market for packaged software in the United States increased by nearly 41%, to $35.6 billion, *id.*, making it one of the fastest growing sectors in our national economy. U.S. Dept. of Commerce, *U.S. Industrial Outlook '94*, at 27-1 (1994). Employment in the software industry has risen every year

[1] One of IPO's members, International Business Machines Corporation, has recently agreed to purchase all of the outstanding shares of Lotus, a non-member.

since 1988 (the first year for which such data are available), creating nearly 73,000 jobs over that period. *Trade Outlook*, at 134 .

ARGUMENT

The central question in this case is whether copyright in a computer program protects the expression in the program's user interface—*i.e.*, the element of the computer program that permits the program author to communicate with the user, and permits the user to communicate with the computer. At least three courts of appeals have held that expression in the user interface of a computer program is copyrightable.[2] In the decision below,[3] the First Circuit accepted the district court's finding that the user interface before it, the menu command hierarchy[4] of the Lotus 1-2-3 spreadsheet program, contained expression, and that other ways of expressing the ideas underlying the user interface were available. 49 F.3d at 816. The court concluded that this case involves the defendant's "deliberate, literal copying of the Lotus menu command hierarchy." *Id.* at 814. Nonetheless, the court below found that the Lotus 1-2-3 menu command hierarchy was, in its entirety, a "method of operation." For that reason, it held that Section 102(b) of the Copyright Act, 17 U.S.C. § 102(b), deprived it of protection. 49 F.3d at 815.[5]

[2] See *infra*, pp. 4-6.

[3] *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807 (1st Cir.), *petition for cert. filed*, 63 U.S.L.W. 3892 (U.S. June 7, 1995) (No. 94-2003).

[4] The Lotus "menu command hierarchy" is the selection of 469 commands and their hierarchical arrangement into more than 50 menus and submenus. 49 F.3d at 809. Together they comprise the heart of Lotus 1-2-3's user interface.

[5] 17 U.S.C. § 102(b) provides:

> In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system,

In the First Circuit's view, " 'method of operation,' as that term is used in § 102(b), refers to the means by which a person operates something, whether it be a car, a food processor, or a computer." *Id.* Since a user interface is a "means by which a person operates . . . a computer," the court's reasoning appears to preclude protection for any user interface.

But the First Circuit's reasoning has troubling implications for all elements of computer programs—not just user interfaces—and, indeed, for computer programs as a whole. A computer program, defined in the Copyright Act as "a set of statements or instructions to be *used* directly or indirectly in a computer *in order to bring about a certain result,*" is a means by which a person operates a computer. 17 U.S.C. § 101 (emphasis supplied). Virtually all elements of a program are means of operating some aspect of a computer. The First Circuit's construction of Section 102(b) might well preclude protection for all such elements, even for the literal code of programs.[6] In his concurring opinion Judge Boudin, in fact, acknowledges that such a literal reading of Section 102(b) "might easily seem to exclude most computer programs from protection." 49 F.3d at 820 (Boudin, J., concurring). That result is clearly at odds with the statute, with the stated intent of Congress and with the weight of judicial authority in other circuits.

method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.

[6] The court's effort to distinguish "computer code" from the Lotus menu command hierarchy, 49 F.3d at 816, rests on flawed reasoning. See *infra*, note 16.

I. THE DECISION BELOW CONFLICTS WITH DECISIONS OF OTHER CIRCUITS AND CREATES UNCERTAINTY AS TO COPYRIGHT PROTECTION OF COMPUTER PROGRAMS

A. The First Circuit's Holding on Copyrightability of User Interfaces Conflicts With Decisions of Three Other Circuits

The First Circuit's holding is flatly inconsistent with decisions on user interfaces of computer programs in other circuits. Each of the three other courts of appeals that have considered the issue has found that the user interface of a computer program is protectible by copyright. Not one court of appeals has interpreted Section 102(b) of the Copyright Act to preclude protection for the original expression contained in a user interface.[7]

The First Circuit acknowledged that its decision conflicts directly with that of the Tenth Circuit in *Autoskill, Inc. v. National Educational Support Systems, Inc.*, 994 F.2d 1476 (10th Cir.), *cert. denied*, —— U.S. ——, 114 S. Ct. 307 (1993). 49 F.3d at 818-19. In *Autoskill*, the Tenth Circuit found that aspects of the plaintiff's user interface could be protected under copyright. 994 F.2d at 1495 & n.23. The court expressly rejected the defend-

[7] We refer, of course, to expression that has not "merged" with the underlying idea. Expression is deemed to have merged with the underlying idea when there is only one way available to express the idea. See generally 3 Melville B. Nimmer and David Nimmer, *Nimmer on Copyright* § 13.03[B][3] (1994) (hereinafter, "Nimmer"). The court below acknowledged, 49 F.3d at 810-11, 816, that there were many alternative ways of expressing the ideas in the Lotus menu command hierarchy (thus ruling out merger), but found that to be "immaterial" to its analysis. *Id.* at 816.

By referring to "original expression" we exclude "*scènes à faire*" —stock treatments of a given subject—that, if protected at all, are protected only against wholesale appropriation. See *Atari Games Corp. v. Oman*, 888 F.2d 878, 886 (D.C. Cir. 1989) (R.B. Ginsburg, J.).

ant's contention, based on Section 102(b), that the means by which a user communicated with the plaintiff's program was a " 'method' not protected by copyright." *Id.* at 1495 n.23.

In *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435 (9th Cir. 1994), *cert. denied*, —— U.S. ——, 115 S. Ct. 1176 (1995), the Ninth Circuit held that the user interface of the plaintiff's computer program was entitled to copyright protection, though, in that case, only against virtually identical copying. *Id.* at 1439. Since the First Circuit acknowledged that the defendant below, Borland International, Inc. ("Borland") made a virtually identical copy of the menu command structure of Lotus 1-2-3, 49 F.3d at 810, but denied it any protection, the conflict between the First and Ninth Circuits is apparent.[8]

The Fifth Circuit, in *Engineering Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335 (5th Cir. 1994), *opinion supplemented on denial of rehearing*, 46 F.3d 408 (5th Cir. 1995), held that the entirety of the input and output formats that comprised the user interface of the plaintiff's program was protectible under copyright. 26 F.3d at 1343-44. That court followed Judge Keeton's holding in *Lotus Development Corp. v. Paperback Software, International*, 740 F. Supp. 37 (D. Mass. 1990), upon which Judge Keeton based much of his reasoning in the district court decisions in this case. *E.g., Lotus Dev. Corp. v. Borland Int'l, Inc.*, 788 F. Supp. 78, 89-90 (D. Mass. 1992), *rev'd*, 49 F.3d 807 (1st Cir.), *petition for cert. filed*, 63 U.S.L.W. 3892 (U.S. June 7, 1995) (No. 94-2003).

[8] The First Circuit also recognized that its holding conflicted with what it described as Ninth Circuit dicta in *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465 (9th Cir.), *cert. denied*, —— U.S. ——, 113 S. Ct. 198 (1992). 49 F.3d at 819 n.14.

B. Applied to Computer Programs, the First Circuit's Interpretation of 17 U.S.C. Section 102(b) Conflicts With Decisions of at Least Five Other Circuits

By erecting Section 102(b) as a barrier to deny protection to original expression in computer programs, the First Circuit has set itself in conflict with all circuits that have considered the application of that provision to computer software.

In *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983), *cert. dismissed*, 464 U.S. 1033 (1984), the Third Circuit rejected a defendant's claim that Section 102(b) deprives operating system programs (the programs that control the basic functions of a computer, such as the storage and retrieval of information from a magnetic disk) from copyright protection because they implement methods, processes, ideas and systems. *Id.* at 1251-52.[9]

In *M. Kramer Manufacturing Co. v. Andrews*, 783 F.2d 421 (4th Cir. 1986), the Fourth Circuit reversed the district court's holding that plaintiff's computer video game (a type of computer program) was not copyrightable under Section 102(b). The district court's premise had been that plaintiff's work was "a 'system or manner of playing a game' or 'description of a game' and was simply an 'idea . . . .' " *Id.* at 434. The Fourth Circuit held the reliance on Section 102(b) to be "unwarranted" because it failed to recognize "the limited purpose of the subsection itself as stated in its legislative history," *id.*,

[9] The Third Circuit also concluded that the desire to achieve compatibility with a competitor's product does not permit distorting the merger doctrine in order to justify a taking of copyrighted expression. *Apple v. Franklin*, 714 F.2d at 1253. The First Circuit, by contrast, posited Borland's desire to achieve keystroke compatibility with Lotus 1-2-3 as a further ground for its decision that Lotus' menu command hierarchy was unprotectible, justifying Borland's wholesale taking. 49 F.3d at 817-18.

simply to restate the dichotomy between idea and expression. *Id.* at 434-35.

In holding that "methods of operation are not limited to mere abstractions," the decision below conflicts with the Second Circuit's decision in *Computer Associates International, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992). In *Altai*, the Second Circuit implemented what it described as Section 102(b)'s "fundamental principle . . . that a copyright does not protect an idea, but only the expression of the idea," *id.* at 703, by employing an "abstractions" test as the first step of its infringement analysis.[10] *Id.* at 706. *Altai* applied that test, enunciated by Learned Hand in *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930), *cert. denied*, 282 U.S. 902 (1931), to separate protectible expression from unprotectible ideas and other abstractions, for "the purpose of defining the scope of plaintiff's copyright." *Altai*, 982 F.2d at 707 (internal quotes and citation omitted). In contrast to the First Circuit, the Second Circuit did not employ Section 102(b) as a barrier to deny protection to expression embodying ideas and other unprotectible matter. By abstracting, it was able to consider the "core of protectible material" that was separable from matter unprotectible under that section.

The First Circuit's conflict with the Second Circuit's *Altai* decision places it in conflict with those other circuits that have adopted some formulation of an abstractions test. See, e.g., *Engineering Dynamics*, 26 F.3d at 1342-43; *Gates Rubber Co. v. Bando Chem. Indus., Ltd.*, 9 F.3d 823, 834 (10th Cir. 1993). See also, *Atari Games*

[10] The court below stated that its "initial inquiry is not whether the Lotus menu command hierarchy incorporates any expression," 49 F.3d at 816, but recognized that "the *Altai* test would contemplate this being the initial inquiry." *Id.* at 816 n.12. It further acknowledged its conflict with the Second Circuit by criticizing *Altai*'s test because it "may actually be misleading . . . in instructing courts to abstract the various levels . . . ." *Id.* at 815.

Corp. v. Nintendo of America, Inc., 975 F.2d 832, 839 (Fed. Cir. 1992) (approving the *Altai* test in dicta).

C. A Conflict in Rules of Copyrightability Leaves Program Authors Uncertain of Their Rights and Discourages Creation of Computer Programs

In the wake of the First Circuit's decision, there is a profound variation among the circuits in the legal standards governing copyright protection of computer programs. The resulting uncertainty will have a significant adverse impact on the software industry.

The software industry depends on copyright law. Innovation drives the industry, and copyright law provides both the necessary incentive for that innovation and the primary means of protecting the works that result from it. Copyright lies at the very heart of the creative endeavor of software development. And the question of what is copyrightable and what is not lies at the very heart of copyright law.

Moreover, the market for software is not regional, but national (and international). Packaged software such as Lotus 1-2-3 and Quattro Pro (the programs at issue here) is advertised and promoted nationally, and is marketed—directly, through mail-order houses, and through chains of retail stores—in every state in the United States.

As a consequence of these two factors, the First Circuit's decision subjects the industry's primary assets to the uncertainty of flatly contradictory legal rules in the marketplace. A software developer cannot know whether, or to what extent, its investments in creative expression will be protected. Such protection is subject to the vagaries of forum and venue. All that is certain is that the question will arise in the lower courts in every case of alleged copyright infringement involving computer programs.

Software development is expensive. Billions of research and development ("R&D") dollars ride on the disposition

of these issues. Developers will not risk such substantial sums for the time and talent of creative programmers without assurance of sufficient legal protection for the fruits of that investment. Yet developers are now threatened with precisely that risk. There is no way of predicting whether a program or any element of a program will be protected. This uncertainty makes investment of R&D resources in innovative software development an unreasonably risky wager, and will likely force some to invest those resources in other endeavors.

The reverse side of this uncertainty is that software developers cannot predict where the boundaries of permissible copying lie. A program that infringes in Texas may not infringe in Massachusetts. Uncertainty on such fundamental matters defeats the goal of a uniform national copyright law. See H.R. Rep. No. 1476, 94th Cong., 2d Sess., at 129-30 (1976) (the "House Report"), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5745-46 (discussing importance of the goal of a uniform national copyright law, as espoused by the Framers of the Constitution).

Moreover, the decision creates uncertainty in an area of law where decisions in the courts of appeals had been converging. Departing from this trend toward coherence and consensus, the First Circuit has unsettled what had appeared to be settled, and created unnecessary uncertainty about the legal rules that apply to a key national industry.

II. THE DECISION BELOW DENIES COMPUTER PROGRAMS THE COPYRIGHT PROTECTION MANDATED BY CONGRESS AND DIMINISHES THE STATUTORY INCENTIVES TO CREATE THEM

In holding that the district court erred by limiting "Lotus 1-2-3's 'method of operation' to an abstraction," 49 F.3d at 816, the First Circuit erected Section 102(b) of the Copyright Act as an initial barrier, denying protection to certain categories of works, or elements of works,

regardless of their expressive content. The Copyright Act does not read that way, Congress did not intend it to be read that way, and no other court of appeals has read it that way.

The First Circuit's misreading is a direct result of its failure to follow the holdings of this Court and employ appropriate methods of statutory interpretation. As applied to computer programs the First Circuit's holding is not merely wrong: it defeats Congress' clear mandate that computer programs be protected under copyright. The decision departs so substantially from settled copyright law, from accepted means of statutory construction, and from the clearly-stated will of Congress, as to call for an exercise of this Court's power of supervision over the lower Federal Courts.

A. The First Circuit Misinterpreted a Key Provision of the Copyright Act Because It Failed to Employ Appropriate Means of Statutory Construction

Without citing any authority for its conclusion, the court below determined that " 'method of operation,' as that term is used in § 102(b), refers to the means by which a person operates something, whether it be a car, a food processor, or a computer." 49 F.3d at 815. According to the court, anything that falls within that definition is wholly deprived of copyright protection, even to the extent that it contains creative expression. *Id.* at 815-19.

But a court should interpret a statutory provision in light of "the provisions of the whole law, and . . . its object and policy," *Kelly v. Robinson*, 479 U.S. 36, 43 (1986) (citations and internal quotations omitted), as revealed by the statutory text and legislative history. The First Circuit failed utterly to do this. Without so much as a sideways glance, the First Circuit looked at Section 102(b) in isolation and proffered an interpretation of

the provision that undoes what Congress did elsewhere in the statute.[11]

Congress' inclusion of a definition of "computer program" in Section 101 is, in itself, persuasive evidence of Congress' mandate that computer programs be counted among the "works of authorship" protected under Section 102(a). The legislative history of the Copyright Act confirms that they are.

The Copyright Act of 1976 culminated more than three decades of consideration and debate by Congress. Congress considered many different viewpoints presented in testimony, written submissions, and studies. Protection of computer programs figured prominently in these proceedings,[12] particularly after the Copyright Office—the agency charged with determining that a work sought to be registered is copyrightable subject matter—began issuing registrations for claims of copyright in computer programs in 1964. *Final Report of the National Commission on New Technological Uses of Copyrighted Works,* 15 (1978) ("CONTU Final Report").

[11] The canon that a court "construe[s] a statutory term in accordance with its ordinary or natural meaning," *FDIC v. Meyer,* 510 U.S. ——, 114 S. Ct. 996, 1001 (1994), should not be applied to a single phrase in isolation in a way that defeats other provisions of the statute.

[12] *See, e.g., Copyright Law Revision: Hearings on H.R. 4347, H.R. 5680, H.R. 6831 and H.R. 6835 before Subcomm. No. 3 of the House Comm. on the Judiciary,* 89th Cong., 1st Sess. 1144-50 (Statement of John F. Banzhaf III), 1898-99 (letter from Graham W. McGowan to Hon. Edwin E. Willis, House Judiciary Committee), 1428, 1443, 1446-48, (statement of Bella L. Linden), 1472 (statement of Howard A. Meyerhoff), 1565 (statement of Fred S. Siebert) (1965); 5 House Comm. on the Judiciary, *Copyright Law Revision* 62-63 (testimony of Morton David Goldberg), 271 (statement of H. R. Mayers) (Comm. Print 1965) (1964 Revision Bill with Discussions and Comments); *Copyright Law Revision: Hearings Pursuant to S. Res. 37 on S. 597 before the Subcomm. on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary,* 90th Cong., 1st Sess. 192-201 (1967) (testimony and statement of Prof. Arthur R. Miller).

Still, Congress sought further input and constituted a panel of experts, the National Commission on New Technological Uses of Copyrighted Works ("CONTU"), to study and make recommendations concerning, *inter alia,* the proper regime for protecting computer programs. *Pub.* L. No. 93-573 (1974). The Copyright Act was enacted before CONTU's study was complete. However, the committee report that Congress prepared when deliberating on the Copyright Act[13] states plainly that computer programs are among the literary works protected by Section 102(a)(1) of the statute:

> The term "literary works" does not connote any criterion of literary merit or qualitative value: it includes catalogs, directories, and similar factual, reference, or instructional works and compilations of data. It also includes computer data bases, and computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the ideas themselves.

House Report, at 54, *reprinted in* 1976 U.S.C.C.A.N. at 5667.

CONTU took testimony and written submissions from numerous experts in copyright and information technology. *CONTU Final Report,* at 113-14, 121-29. After consideration and debate, CONTU concluded that copyright should protect computer programs to the same degree as, and under the same principles that apply to, other copyrighted works. *CONTU Final Report,* at 11-14. In 1980 Congress adopted CONTU's recommendations with immaterial changes—including CONTU's proposed

[13] See *Gustafson v. Alloyd Co.,* —— U.S. ——, 115 S. Ct. 1061, 1072 (1995) ("If legislative history is to be consulted, it is preferable to consult the documents prepared by Congress when deliberating.").

definition of "computer program."[14] Pub. L. No. 96-517, 94 Stat. 3015, 3028 (1980).

Under the First Circuit's construction of Section 102(b), however, it is questionable whether *any* protection remains for computer programs.[15] Notwithstanding the court of appeals' unpersuasive attempt to limit the reach of its holding,[16] its interpretation of Section 102(b) conflicts directly with Congress' intent that computer programs be protected by copyright.

[14] As this brief chronology demonstrates, copyright protection for computer programs is neither an historical accident, nor an impulsive act that received little attention by the legislators. Copyright protection for computer programs is the result of decades of open debate and careful consideration.

[15] See *supra*, p. 3.

[16] The First Circuit's attempt to limit its holding by distinguishing "computer code" from the Lotus menu command hierarchy is based on flawed and unpersuasive reasoning. The court stated that the menu command hierarchy of Lotus 1-2-3 was a method of operation because "[w]ithout the menu command hierarchy, users would not be able to access and control, or indeed make use of, *Lotus 1-2-3's* functional capabilities." 49 F.3d at 815 (emphasis supplied). On the other hand, the code of Lotus 1-2-3 is not a method of operation because, in order for a competing program "to offer *the same capabilities as Lotus 1-2-3* [a competitor does not] have to copy Lotus' underlying code . . . ." *Id.* at 816 (emphasis supplied). The court asked a different question regarding the menu command hierarchy (whether it was needed to operate *a particular program*—Lotus 1-2-3) than it asked regarding code (whether the particular code was needed to offer *the same capabilities* as Lotus 1-2-3). Had it applied to the user interface the same standard it applied to the code, the Court of Appeals would have found the menu command hierarchy copyrightable, since a program offering *the same capabilities* as Lotus 1-2-3 could have a different menu command hierarchy, as the district court found. By the same token, had it applied to the program code the same standard it applied to the user interface, it would have recognized the flaw in its reasoning. The code of Lotus 1-2-3 is necessary to operate Lotus 1-2-3, as the code of any program is necessary to operate that particular program, making the code—under the First Circuit's reasoning—an unprotectible method of operation.

The phrase "method of operation" is not defined in the Copyright Act. The court below, presumably adopting what it viewed as the common use of those words, 49 F.3d at 821 (Boudin, J., concurring), constructed a definition similar to that adopted by Congress for a "computer program" in Section 101. On its face, that construction must be wrong. It cannot be presumed that Congress intended to adopt for uncopyrightable matter a definition that has essentially the same meaning as the statutory definition of a protectible work of authorship—namely, a computer program.[17]

But even assuming that the First Circuit's definition were defensible, that would not be dispositive of the question whether the manner in which a "method of operation" is expressed is copyrightable. Nothing in Section 102(b) states or even suggests that *expression* that is separable from (*i.e.*, is not merged with) a "method of operation" is uncopyrightable. Separating a method of operation from expression is analytically no different from separating ideas (another category listed in Section 102(b)) from expression.[18]

The First Circuit not only failed to consider the whole statute, but even failed to consider the whole subsection.

[17] See 1 *Nimmer*, at § 2.03[E]; Jane C. Ginsburg, *Four Reasons and a Paradox: The Manifest Superiority of Copyright over Sui Generis Protection of Computer Software*, 94 Colum. L. Rev. 2559, 2570 (1994) ("[S]ince we know that Congress did determine in 1980 to protect computer programs, the terms 'process,' 'system,' or 'method of operation' must not be understood literally." (footnote omitted)).

[18] The fallacy of the First Circuit's construction is illustrated by substituting "idea" for "method of operation." "Idea" can be defined as "a formulated thought or opinion." *Webster's Ninth New Collegiate Dictionary* 597 (1987). Therefore (following the First Circuit's logic) any element of a work that fits that definition is unprotectible, no matter how expressed. That interpretation would, of course, disqualify most writings from copyright protection.

Section 102(b) denies protection to "any idea, procedure, process, system, method of operation, concept, principle, or discovery . . . ." 17 U.S.C. § 102(b). The presence of "idea" at the head of this list of unprotectible matter itself strongly suggests that Congress intended Section 102(b) to restate the "idea/expression" dichotomy, first enunciated by the Court in *Baker v. Selden*, 101 U.S. 99 (1879).[19] Absent merger (another principle that owes its origin to *Baker*), the idea/expression dichotomy does not deny protection to expression in a work.[20] The same is true of each of the other items listed in Section 102(b).

Again, the legislative history of the Copyright Act confirms this reading:

> Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.
>
> Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. Its purpose is to restate, in the context of the new single Federal system of copyright, that the basic dichotomy between expression and idea remains unchanged.

[19] The final phrase of Section 102(b) ("regardless of the form in which it is described, explained, illustrated, or embodied in such work") also supports the interpretation of that provision as a statement of the idea/expression dichotomy. The statutory language clearly contemplates that ideas, procedures, processes and the like are separable from the form in which they are "described, explained, illustrated, or embodied . . . ." Thus a dichotomy exists between the unprotectible matter and its "form" or expression.

[20] *See* Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer Generated Works: Is Anything New Since CONTU?*, 106 Harv. L. Rev. 977, 986 (1993) ("Since *Baker*, courts have reaffirmed repeatedly that functionality poses no per se bar to copyrightability.") (the author was a member of CONTU who served on its software subcommittee).

House Report, at 57, 1976 U.S.C.C.A.N. at 5670. See also *id.* at 54, 1976 U.S.C.C.A.N. at 5667 (computer programs are protectible under Section 102(a)(1) "to the extent that they incorporate authorship in the programmer's expression . . . as distinguished from the ideas themselves.").

Implementing Congress' express statement in the legislative history of the Copyright Act, courts of appeals have universally found Section 102(b) to be a restatement of the idea/expression dichotomy. See, e.g., *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 69 & n.12 (2d Cir. 1994), *petition for cert. filed*, 63 U.S.L.W. 3892 (U.S. June 7, 1995); *Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222, 1234 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031 (1987); *M. Kramer Mfg. Co., Inc. v. Andrews*, 783 F.2d 421, 434 (4th Cir. 1986); *Kepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533 & n.8 (5th Cir.), *cert. denied*, —— U.S. ——, 115 S. Ct. 82 (1994); *Robert R. Jones Assocs., Inc. v. Nino Homes*, 858 F.2d 274, 277 (6th Cir. 1988); *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1211-12 (8th Cir. 1986); *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1443 & n.11 (9th Cir. 1994); *Autoskill Inc. v. National Educ. Support Sys., Inc.*, 994 F.2d 1476, 1495 (10th Cir. 1993); *Cable/Home Communication Corp. v. Network Prods., Inc.*, 902 F.2d 829, 842-43 (11th Cir. 1990). See also, *Atari, Inc. v. North American Philips Consumer Elecs. Corp.*, 672 F.2d 607, 615 (7th Cir.) ("The Copyright Act of 1976 codifies this idea-expression dichotomy. 17 U.S.C. § 102(b)"), *cert. denied*, 459 U.S. 880 (1982).

B. Denying Protection to Expression in Computer Programs Erodes Severely the Incentives Congress Enacted for Their Authors

The Constitution grants Congress the power "To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive

Right to their respective Writings and Discoveries," U.S. Const., art. I, § 8, cl. 8. It thus establishes both the underlying goal of copyright law (to promote the progress of science (knowledge)) and the mechanism for achieving that goal (granting authors exclusive rights for a limited period of time).

The Court has confirmed that the public good is served by providing authors with these exclusive rights as an incentive to create works of authorship:

> The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in "Science and useful Arts." Sacrificial days devoted to such creative activities deserve rewards, commensurate with the services rendered.

Mazer v. Stein, 347 U.S. 201, 219 (1954).

The computer software industry relies on these incentives, and they have caused the industry to flourish and grow. Any fundamental alteration in the balance of these incentives, as in the decision below, will have a substantial and detrimental effect on the industry.

Software development (including user interface design)[21] requires a substantial investment in creative expression—the very creativity that the economic incentives in the Copyright Act are designed to protect and nurture. Eliminating copyright protection for programs or expressive elements of programs undermines those incentives to innovate.[22] Even casting substantial doubt on the avail-

[21] As the most visible element of a computer program, the user interface is also the most easily plagiarized. Excluding this important programming element from protection will inevitably lead to more unauthorized copying.

[22] In *Apple Computer, Inc. v. Formula Int'l, Inc.*, 562 F. Supp. 775, 783 (C.D. Cal. 1983), *aff'd*, 725 F.2d 521 (9th Cir. 1984), the

ability and extent of such protection stifles progress and creativity, and disserves the goals of the Copyright Act.[23]

C. The First Circuit's Construction of Section 102(b) Is Such a Significant Departure From That of the Overwhelming Majority of Courts of Appeals and District Courts as to Call for an Exercise of This Court's Power of Supervision

The First Circuit's approach to Section 102(b) of the Copyright Act is a substantive and jurisprudential anomaly. The Court of Appeals, considering itself to be "navigating in uncharted waters," 49 F.3d at 813, weighed anchor and set itself adrift doctrinally. The court failed to follow the course that Congress charted for the judiciary in the Copyright Act and its legislative history. It ignored the overwhelming number of other courts that have recognized Section 102(b) as a restatement of the idea/expression dichotomy. And in so doing it reached

court observed: "Few companies are going to invest the time and resources to develop new programs if their products can be freely duplicated by anyone. Such 'competitors,' who could undersell the originator simply because they don't have its development costs, would destroy the market which any innovator needs to recoup his investment."

[23] This is so despite the First Circuit's mistaken belief that its holding would foster progress in the sofeware development industry. 49 F.3d at 817-18. The First Circuit was obliged to abide by the balance struck by Congress in establishing the scheme of incentives for authors. This Court's admonition to another court of appeals is appropriate in this instance as well:

> We agree with the Court of Appeals that copyright is intended to increase and not impede the harvest of knowledge. But we believe the Second Circuit gave insufficient deference to the scheme established by the Copyright Act for fostering the original works that provide the seed and substance of this harvest. The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors.

Harper & Row, Publishers v. Nation Enters., 471 U.S. 539, 545-46 (1985) (citation omitted).

erroneous conclusions that subvert the goals of the Copyright Act and jeopardize the ability of a critical industry to continue its significant contributions to our nation's economy.

The issues raised in this case are as ubiquitous as they are important. The question of copyrightability arises in all copyright infringement cases, and is central to many. The substantial degree to which the First Circuit has lost its way in this case calls for an exercise of the Court's power of supervision over the federal judiciary. Cf. *Florida v. Rodriguez*, 469 U.S. 1, 7 (1984) (Stevens, J., dissenting) ("As the Court of last resort in the federal system, we have supervisory authority and therefore must occasionally perform a pure error-correcting function in federal litigation.").

CONCLUSION

The petition for a writ of certiorari should be granted.

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REDACTED

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIRST CIRCUIT

No. 93-2214

LOTUS DEVELOPMENT CORPORATION,

Plaintiff/Appellee,

v.

BORLAND INTERNATIONAL, INC.,

Defendant/Appellant.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS
HONORABLE ROBERT E. KEETON, JUDGE

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UNITED STATES COURT OF APPEALS
FOR THE FIRST CIRCUIT

LOTUS DEVELOPMENT CORPORATION,	:	Appeal No. _____
Plaintiff/Appellee,	:	
- against -	:	
BORLAND INTERNATIONAL, INC.,	:	
Defendant/Appellant.	:	

CORPORATE DISCLOSURE STATEMENT OF DEFENDANT/APPELLANT BORLAND INTERNATIONAL, INC.

Pursuant to Fed. R. App. P. 26.1, Defendant/Appellant Borland International, Inc. hereby states that it has no parent companies, subsidiaries, or affiliates that have issued shares to the public.

Respectfully submitted,

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Wall St. J., Aug. 13, 1992 21

This is an appeal from an injunction which prohibits Appellant from "manufacturing, selling, distributing [or] licensing" eight spreadsheet software products -- virtually Appellant's entire spreadsheet line. Entry of the injunction followed three years of proceedings in the District Court and is based upon four lengthy opinions[1] of the District Court published over an 18-month period. Each of these opinions refers to and is based upon an earlier decision of the District Court, Lotus Dev. Corp. v. Paperback Software Int'l, 740 F. Supp. 37 (D. Mass. 1990) ("Paperback"), which decision was not appealed to this Court. Damage proceedings, in which more than $100 million are sought, Trial Tr. of Feb. 3, 1993 at 61, Appendix ("App.") 107, have continued in the lower court, concurrently with this appeal.

STATEMENT OF JURISDICTION

Plaintiff/Appellee Lotus Development Corporation's ("Lotus") complaint alleging copyright infringement was brought pursuant to the Copyright Act, 17 U.S.C. § 101 et seq. The District Court's jurisdiction is based on 28 U.S.C §§ 1331, 1332, and 1338. Jurisdiction in this Court is based on 28 U.S.C. § 1292(a). The District Court's order granting permanent injunctive relief was entered on August 19, 1993. The notice of appeal of defendant/appellant Borland International, Inc. ("Borland") was timely filed on September 10, 1993.

---

[1] Lotus Dev. Corp. v. Borland Int'l, Inc., 788 F. Supp. 78 (D. Mass. 1992) ("Borland I"); Lotus Dev. Corp. v. Borland Int'l, Inc., 799 F. Supp. 203 (D. Mass. 1992) ("Borland II"); Lotus Dev. Corp. v. Borland Int'l, Inc., 831 F. Supp. 202 (D. Mass. 1993) ("Borland III"); and Lotus Dev. Corp. v. Borland Int'l, Inc., 831 F. Supp. 223 (D. Mass. 1993) ("Borland IV"). The principal decision in the case, Borland II, was rendered on cross-motions for summary judgment and the lower court's rulings in the decisions will therefore be reviewed de novo by this Court. Petitti v. New England Tel. & Tel. Co., 909 F.2d 28, 30 (1st Cir. 1990); Morales v. Ramirez, 906 F.2d 784, 785 (1st Cir. 1990).

The district court's grant of the permanent injunction incorporates all of the underlying decisions of the district court on the merits of the case, and is based specifically upon those decisions. Borland IV, 831 F. Supp. at 226, 245. Because the district court's order granting a permanent injunction is interdependent and inextricably intertwined with all of the district court's decisions on the merits of the case, this Court has the power to review the entire record of the case, including the grant of partial summary judgment to Lotus, the denial of summary judgment to Borland, and the findings of fact and conclusions of law derived from the trials in this case. See, e.g., MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 516 (9th Cir. 1993); Port Auth. Police Benevolent Ass'n, Inc. v. Port Auth., 698 F.2d 150, 153 (2nd Cir. 1983); Energy Action Educ. Found. v. Andrus, 654 F.2d 735, 745 (D.C. Cir. 1980); Cheyenne River Sioux Tribe v. South Dakota, 3 F.3d 273, 278 (8th Cir. 1993).

ISSUES FOR APPEAL

1. Did the lower court err in extending copyright protection to the 1-2-3 menu command hierarchy?

2. Did the lower court err in denying Borland's "fair use" defense?

3. Did the lower court err in denying Borland's affirmative defenses of laches, estoppel and waiver?

STATEMENT OF THE CASE

A. Summary of the Case

There is a good reason why this computer software copyright case has generated such widespread attention and controversy among the computer industry, the academic community and the legal profession. In the usual software copyright case, the defendant is alleged to have copied either the text ("code") or structure of the plaintiff's computer program, or the way the plaintiff's program looks on the computer screen when it is executing.

No such copying occurred here. Lotus did not even allege any copying of its code, and the lower court found that the programs look different on the computer screen. But the lower court held that a system of functional computer operations, which the program displays to the user as a series of commands such as "COPY," "MOVE" or "PRINT," are protectable under the copyright laws. While such utilitarian processes are perhaps patentable under the patent laws, this is not a patent case since the plaintiff obtained no patent on its computer program. Despite the clear mandate of the copyright statute and case law that such systems, operations and utilitarian processes are not protectable by copyright, the District Court found copyright infringement and enjoined Borland from using the plaintiff's series of commands. Because the Copyright Act does not and was never intended to protect such functional features of a computer program, the District Court's order should be reversed.

Lotus markets a computer program known as "1-2-3." The Complaint charges infringement of only three versions of that product, Releases 1.0, 1A and 2.0. Complaint at ¶¶ 11-13, App. 986.[2] Borland is a

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[2] At various times in the proceedings Lotus has also placed into the record, over Appellant's strenuous (continued...)

publicly traded, Silicon Valley company that develops, publishes, markets and distributes various types of computer software, including relational database management system software, development tools, computer language compilers and utilities. See Answer at ¶ 5, App. 991. Borland has developed and brought to market a series of award-winning spreadsheet products, marketed under the name "Quattro Pro," which are the subject of this lawsuit.[3]

1. Nature of the Computer Programs

Generally speaking, there are two principal types of computer programs:[4] "application" programs "that permit a user to perform some particular task," and "operating system" programs, that permit applications to execute (or "run") by controlling the basic functions of the computer so as to provide the "interface" between the application program and the computer hardware. Paperback, 740 F. Supp. at 43. The programs at issue in this case have important characteristics of both types of software.

Both 1-2-3 and Quattro Pro are integrated application programs which perform spreadsheet, database management and graphics presentation functions. Borland III, 831 F. Supp. at 209. The spreadsheet capabilities of these products automate the familiar handwritten spreadsheet of rows and columns used frequently in business to display interdependent numerical relationships. The products invoke and display to the user on the computer screen the spreadsheet grid (rows and columns), and automatically recalculate numbers as changes are made in other parts of the spreadsheet. Paperback, 740 F. Supp. at 65.

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[2](...continued)
objections, evidence concerning one later version of 1-2-3 not mentioned in the Complaint, Release 2.01, published in 1986. See, e.g., Tr. of May 19, 1992 Hearing at 3-6, App. 12; Trial Tr. of April 1, 1993 at 2-32, App. 295.

Manzi Tr. at 173-176, App. 885. "App." refers to the cited page of the Appendix, to be submitted after submission of all briefs pursuant to the Court's Order of Nov. 17, 1993. "RE" refers to the cited pages of the Record Excerpts in the Addendum attached hereto.

[3] Borland's original spreadsheet product, known simply as "Quattro," was first published in 1987, but was discontinued in favor of the more advanced "Quattro Pro" product. See Borland's Memo. in Support of Cross-Motion for Summary Judgment (Dkt. No. 141) ("Borland S.J. Brief") at 1-2; Borland III, 831 F. Supp. at 218. This case has focused primarily on the various releases of Quattro Pro.

[4] Computer programs are also known as "software," as distinguished from the electronic circuitry and input and output devices of a computer system, known as "hardware." Paperback, 740 F. Supp. at 43.

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[4] Computer programs are also known as "software," as distinguished from the electronic circuitry and input and output devices of a computer system, known as "hardware." Paperback, 740 F. Supp. at 43.

1-2-3 and Quattro Pro also function in much the same manner as do operating systems. Third parties and users are instructed and encouraged to write application programs, known as "macros," that further automate the functions of the products so that they can be used easily to perform more precise and intensive tasks. These third party application macros sit "on top of" and direct the 1-2-3 or Quattro program in the same way those programs sit on top of the operating system. The lower court's description of macros contains relatively trivial examples, consisting of the automation of three or four keystrokes. See, e.g., Borland II, 799 F. Supp. at 207-208; Borland IV, 831 F. Supp. at 226-227. But macros are produced and distributed commercially, and a trip to any computer store will reveal many books featuring a myriad of more typical business examples of complex 1-2-3 macros consisting (like other application programs) of thousands of lines of "code" (i.e., computer instructions).[5]

2. Allegations by Lotus

In its earlier Paperback decision, the lower court found infringement of the "user interface" of Lotus 1-2-3. The user interface of a computer program is "[t]he combination of a computer monitor's visual displays and the user command functions on the keyboard or other input devices." Apple Computer, Inc. v. Microsoft Corp., 799 F. Supp. 1006, 1017 (N.D. Cal. 1992). The court held that, considered as a whole, the Lotus user interface was copyrightable subject matter, and that Paperback's user interface was substantially similar to that of Lotus 1-2-3. Paperback, 740 F. Supp. at 68, 70. In Lotus' words, "[w]hat occurred [in Paperback] was a gross taking of the entire user interface."[6]

Immediately after the Paperback decision was published, Lotus brought its complaint against Borland, again alleging similarity of "user interface." See Complaint at ¶¶ 16-20, App. 987. However, subsequent discovery showed that no such similarity existed. The lower court did not hold as its basis for copyright infringement that the "user interfaces" or "screen displays" of the products at issue were similar. On the

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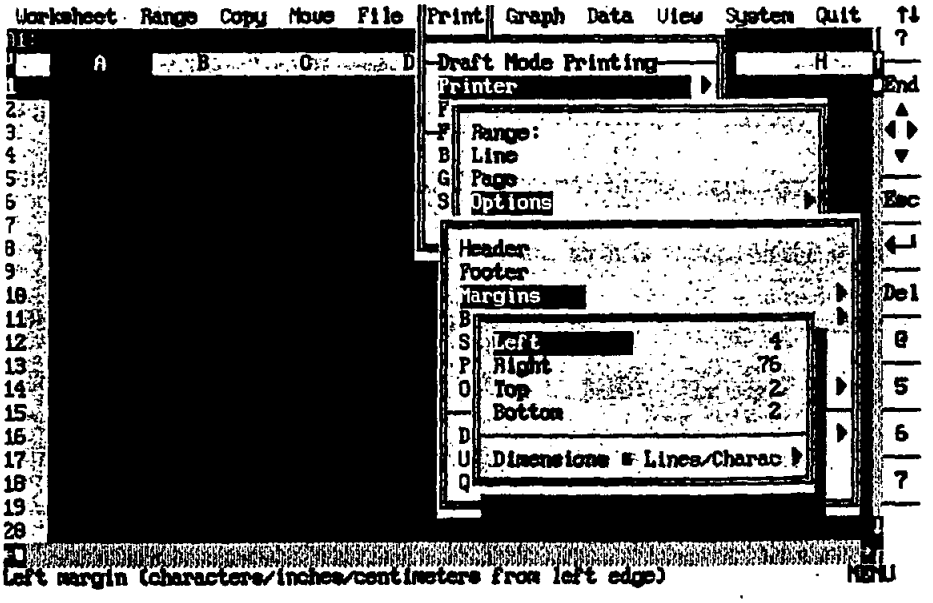
[5] See, e.g., Olson Decl. at ¶ 42, App. 716.

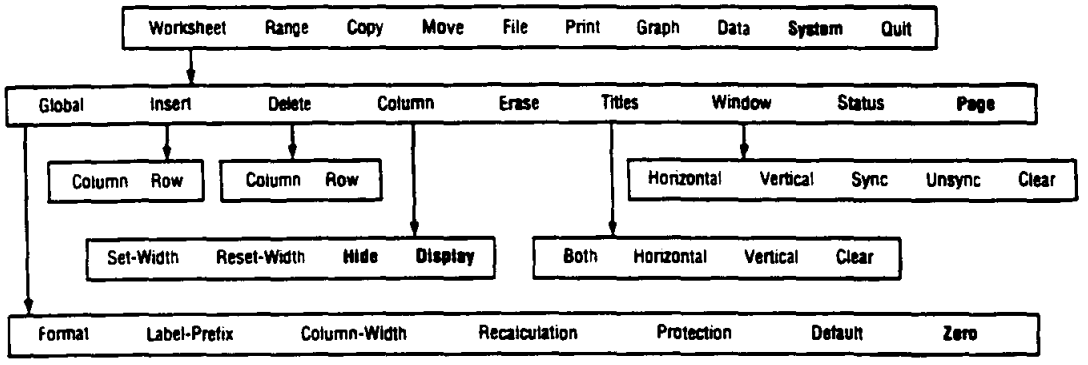
[6] Lotus' Post-Trial Brief at 59, filed in Paperback, dated March 12, 1990. See Borland S.J. Brief (Dkt. No. 141) at 12.

contrary, the similarity Lotus has been complaining about in this case goes to the operation of the programs at issue. The user interfaces of the products look different, but they operate in a similar manner. For example, Lotus' screen display of its "1-2-3" product looks like this when setting the left margin for printing:

Borland's "Quattro Pro" product, even in its "123-compatible mode," looks like this when performing the same function:



The Lotus commands appear in the top portion of the screens of 1-2-3 in a certain order that, as the lower court observed, might be compared to a tree with various leaves and branches, representing the relationships among the command functions. See Borland III, 831 F. Supp. at 210. A chart from the trial exhibit depicting a portion of this "tree" is reproduced below:[7]



This "menu tree" is merely a depiction setting out the organized hierarchical set of alternative steps that an individual may take to manipulate and perform calculations and other operations on the data contained in the cells of the spreadsheet grid. As the program executes, a few commands appear in the top portion of the screen in an order determined by the functional result the user is seeking. In the "123-compatible mode," the Borland product contains all of the functions of Lotus 1-2-3 in the same order, along with many other commands added at each level of the "tree."[8]

This purely functional, utilitarian menu tree, or "menu command hierarchy," is the sole aspect of the Lotus program alleged to have been used in the Borland programs. In fact, Lotus has never alleged in this case that Borland copied any aspect of the 1-2-3 "program," as that term is defined in the statute. The copyright statute defines "computer program" as a "set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." 17 U.S.C. § 101. The actual written "statements" of a computer program are manifested as "source code" (which can be written and read by humans) and "object

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[7] Plaintiff's Trial Exhibit No. 36 at 139, App. 1268. The entire menu tree is depicted at Ex. C to Flesher Decl., App. 495.

[8] See Exs. A, B to Flesher Decl., App. 385, 450.

code" (ones and zeros that are the "object" of the computer's execution). Paperback, 740 F. Supp. at 43. Lotus did not claim that Borland copied Lotus' computer code, nor was the code of any product even submitted as evidence at any point in the proceedings below.[9]

In the 123-compatible mode, the Borland products operate in the same manner as does 1-2-3 because of the similarity in functional commands. In the lower court, Borland argued (just as it does here) that the difference between precluding by court decision the ability of a company to make a product that looks like that of its competitor – in contrast with precluding the development and marketing of a product that operates in the same way as a competitive product – is enormous in terms of its effect on users, software development and the competitive vigor of the marketplace. Menu command hierarchies displayed onto a video screen as the output of a computer program are ubiquitous in our society. They have replaced buttons, knobs and switches as the method by which users control fax machines, printers, videocassette recorders ("VCRs"),[10] not to mention the myriad of application and utility software products that enable computer users to perform specified tasks. Indeed, this distinction between how a product looks and how it operates accounts in large measure for the fact that our intellectual property protection system has two separate and distinct forms of protection: copyright protection that is easy to obtain and patent protection that is difficult to obtain.

Ultimately, the lower court agreed with Borland with respect to the absence of user interface similarity, but nevertheless found infringement, denying Borland's motion for summary judgment and granting that of Lotus. The lower court found that "Borland ha[d] designed an interface that in many respects looks substantially different from the 1-2-3 user interface," but that Borland had "appropriated" the "feel" of the 1-2-3 user interface "to a great extent" and therefore infringed Lotus' copyright. Borland II, 799 F. Supp. at 220.

The District Court rulings were not predicated on any aspect of code or screen similarity, but rather on Borland's use of the "structure" of the 1-2-3 menu command hierarchy. The lower court conceded that the

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[9] The lower court expressly stated that code was not at issue in the case. See Trial Tr. of April 1, 1993 at 136-37, App. 326.

[10] See Borland S.J. Brief (Dkt. No. 141) at 18 nn.17-19.

"structure" of the menu command hierarchy was nothing more than the "selection and arrangement of executable operations in Lotus 1-2-3," Borland IV, 831 F. Supp. at 231, but ruled that this "selection and arrangement" constituted copyrightable subject matter (as a "non-literal aspect" of the computer program) which Borland infringed (1) by displaying the 1-2-3 command words on the computer screen during execution of its program, Borland II, 799 F. Supp. at 220-221, (2) by permitting users to enter "the same keystroke sequence to perform the same spreadsheet operations in both 1-2-3 and Quattro Pro's emulation mode," id. at 220, and (3) by including the "Lotus menu tree structure," but not the words themselves or even the order of those words, in an internal file in the Quattro Pro program, Borland IV, 831 F. Supp. at 228.

The lower court held as a matter of law, on cross-motions for summary judgment, that the Lotus menu words and their order (the "menu command hierarchy") are copyrightable. See Order Regulating Jury Trial, at 18-19 (reprinted in Addendum) ("Procedural Order"). The entirety of this case stands or falls on this summary judgment holding. There are no material factual issues in the case. Both the parties and the lower court agreed that summary judgment disposition was appropriate. Borland seeks in this appeal to reverse the lower court's award of summary judgment to Lotus, to vacate the injunction, and to reverse the lower court's denial of summary judgment to Borland.

B. Facts of the Case

All of the principal facts in this case are undisputed. The parties made extensive factual submissions at the summary judgment phase without objection, and all of that evidence is now properly before this Court on appeal.[11]

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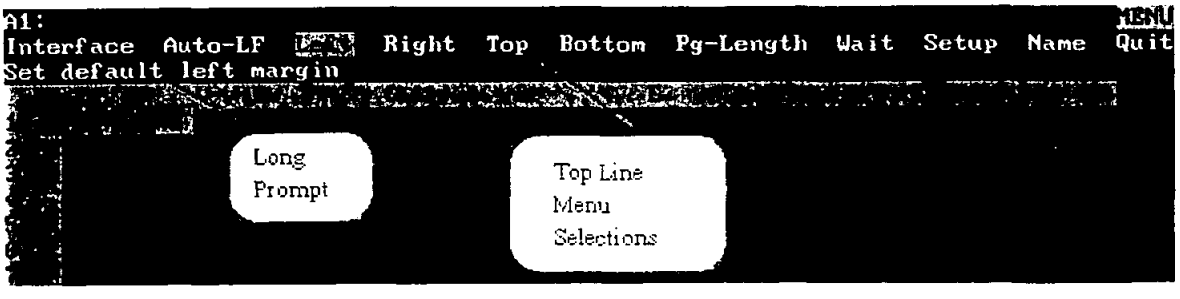
[11] See In re Teltronics Serv., Inc., 762 F.2d 185, 192 (2d Cir. 1985); Lacey v. Lumber Mut. Fire Ins. Co. of Boston, 554 F.2d 1204, 1205 (1st Cir. 1977). Lotus' primary evidentiary objection at the summary judgment phase was to Borland's reply videotape. See Plaintiff Lotus Development Corp.'s Objections to the Deposition Testimony Excerpts and "Reply Video" (Dkt. No. 131). The videotape was received by the lower court, March 20, 1992 Memorandum and Order (Dkt. No. 164), at 2, 2(a), and the objection is moot.

Citations in this brief are primarily to the summary judgment record. Citations in the form "Ex. (number)" refer to the exhibits submitted in support of the motion. During the subsequent bench trial phases of the case, the lower court ruled on admissibility of some of the same evidence for the issues before the court in the respective phases of trial. In order to avoid confusion, it is important to note that the district court's evidentiary rulings go only to the later phases of trial and not to the summary judgment decision itself.

1. Development of 1-2-3

a. User Interface. The record in this case indicates that the code and some of the functionality of the 1-2-3 program was original to Lotus,[12] but virtually every element of the program's user interface, including the command words and segments of the hierarchy, was present in products developed by other companies prior to the publication of 1-2-3. VisiCalc, the first commercial electronic spreadsheet, was described by the lower court as "a revolutionary advance in the field of programming." Paperback, 740 F. Supp. at 65. The extent to which Lotus appropriated aspects of VisiCalc was heatedly contested in the Paperback case. See id. at 83. The lower court conceded that Lotus used a number of elements from VisiCalc, including the spreadsheet metaphor, the rotated "L," and the designations of various keys to perform specific functions, see id. at 66, but the court found each of these features uncopyrightable. The court concluded that the 1-2-3 menu structure "taken as a whole," including its "presentation on the screen" was "original and non-obvious," and, hence, the 1-2-3 user interface was copyrightable. Id. at 68.

The 1-2-3 user interface presents command choices through a "two-line moving cursor." The top line is the set of available command options, and the second line is the "long prompt," or explanatory message, for the command on which the cursor is set in the top line. Id. at 64.



Commands are selected either by (a novice) using the cursor keys to highlight the desired command, then pressing "enter," or by (a more advanced user) typing the first letter of the command on the keyboard, in the

[12] Affidavit of Mitchell D. Kapor ("Kapor Aff.") at ¶¶ 19-30, 49-50, App. 536, 542.

same manner as a touch typing system. See, e.g., Kapor Aff. at ¶ 48, App. 542; Paperback, 740 F. Supp. at 64. Using voice recognition software and a microphone as the input device, the user could simply speak the commands in the appropriate order.

The lower court focused its analysis of prior works solely on VisiCalc because the defendants in Paperback did not bring to the Court's attention the user interface similarity between 1-2-3 and a different product, VisiTrend/Plot, which also predated 1-2-3. VisiTrend/Plot was a graphics and statistical analysis program that 1-2-3's principal developer, Mitchell Kapor, worked on for a previous employer, Personal Software, Inc. Id. at ¶¶ 14-16, App. 535. Kapor's own affidavit, submitted by Lotus in this case, admits that the two line moving cursor and its "main elements" came from the earlier VisiPlot product. Id. at ¶¶ 42-44, App. 540. Indeed, the record in this case demonstrates that virtually all of the user interface features associated by the lower court in Paperback with 1-2-3 were taken initially from the VisiPlot product. See Buechele Decl. at ¶ 3, App. 348. These include features such as "full word command names," and "command long prompts following highlighting on status line."[13]

b. Command Functions. It is equally undisputed that the vast majority of command words and functions of 1-2-3 were not original to that product. Many of the 1-2-3 menu commands and functions were present in VisiCalc. Even a cursory examination of other software products predating 1-2-3 indicates that approximately 80% of the commands in 1-2-3 were available in programs prior to 1-2-3's creation, a fact the lower court eventually conceded.[14]

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[13] Other such features include "a highlighted, moving cursor," "command selection based on highlighting, with command activation based on subsequent <Enter> key," "command activation based on abbreviated command name," and "ordering of commands by anticipated frequency of use." Buechele Decl. at ¶ 3, App. 348.

[14] Second Buechele Decl. at ¶ 7, App. 352; Tr. of Oct. 16, 1992 Hearing at 6-7, App. 21.

[15] Lotus doc. 046195 LP; compare Lotus doc. KP00861 with Paperback, 740 F. Supp. at 61.

(continued...)

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It is certainly no surprise that 1-2-3 would use the same command words as pre-existing products because, according to Jonathan Sachs, one of the principal 1-2-3 developers, "every command was chosen because it suggested to some measure what the command did." Sachs Tr. at 154, App. 920. The Kapor Affidavit is to the same effect: words were chosen to "intelligently convey to the user the purpose of each command and its underlying functionality." Kapor Aff. at ¶ 75, App. 546. In copyright terms, each menu label and its underlying function "merged."[18]

In short, Lotus does not base its claim of infringement on Borland's use of the same command words, since those words are common to spreadsheet products. For example, Quattro Pro's "native" interface, against which Lotus professes no claim, uses basically the same command set in a different order.[19] Lotus' claim of infringement therefore devolves to the question of the copyrightability of the order or "structure" of these common commands – or, as the lower court characterized it, the "arrangement of executable operations."

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[15](...continued)

[16] Lotus doc. KP02306, App. 1247; Lotus docs. KP01103; KP01082, KP01085, App. 1248.

[17] Lotus doc. KP01017, App. 1251.

[18] As this Court correctly observed many years ago, "merger" does not mean that there is only one way to "express" an idea. Rather, when merger applies, "it does not seem accurate to say that any particular form of expression comes from the subject matter. However, it is necessary to say that the subject matter would be appropriated by permitting the copyrighting of its expression." Morrissey v. Proctor & Gamble Co., 379 F.2d 675, at 678-679 (1st Cir. 1967).

[19] Lotus makes no claim to the Quattro products' native interfaces, Borland III, 831 F. Supp. at 211. All relevant software products were submitted to the court in an electronic "Software Library" (Dkt. No. 360).

Borland IV, 831 F. Supp. at 231.

c. **Order of Commands.** The development of the 1-2-3 menu command hierarchy is well chronicled in the lower court's proceedings. According to Lotus' affidavits, the commands were organized "hierarchically," in the manner depicted in the "menu tree," so that "the selection of one command option from the first level menu could lead in turn to another array of command options on a second level (or 'submenu'), and so on." Kapor Aff. at ¶¶ 44-45, App. 541. The hierarchical arrangement was chosen to enable

> the novice user to browse through the menu levels, in order to view the valid sequences of available options (and their corresponding explanations) and to map out a plan for performing a particular task.

Kapor Aff. at ¶ 44, App. 541.

1-2-3's developer drew a firm line between the menu choices in the hierarchy (the "options" for "mapping out the plan") and the explanation of those "options." According to the Kapor affidavit, for example, the "long prompts" are intended to provide "information to the user" and "explanations," while the purpose of the menu entries is to enable the user to "map out a plan for performing a particular task." Kapor Aff. at ¶¶ 44, 101, App. 541. Similarly, Lotus' expert Galler distinguished between the menu choices themselves and "explanatory information" -- in the form of long prompts and help screens -- about the menu choices. Galler Decl. at ¶¶ 117-18, 141, App. 518. As the Galler declaration makes clear, the command words do not explain to the user how to use the system -- they merely identify the functions that comprise the system. Explanation and education are provided by the help facility, product documentation, long prompts, and tutorials supplied with the system. Id. at ¶ 118, App. 518.

According to Mitchell Kapor, the 1-2-3 hierarchy was organized according to a number of principles: predicted frequency of use of commands, approximately seven functions on a menu level, unique first letters on each level, etc. See, e.g., Paperback, 740 F. Supp. at 67; Kapor Aff. at ¶¶ 75-79, App. 546. The lower court found that these principles functioned merely as "guidelines," Borland III, 831 F. Supp. at 213, and concluded that "[t]he set of executable operations in Lotus 1-2-3 is large and the possible structural variations are enormous," id. at 215.

But it is also clear from the record that the 1-2-3 hierarchy was organized as an act of engineering, not "art" or "literary expression" as those terms are known in the copyright law, and was intended to function in the manner described by 17 U.S.C. § 102(b) -- outside the parameters of copyright protection. As set forth in considerable detail in Borland's summary judgment brief, the menu command hierarchy was developed by Mitchell Kapor to be used as a system, it was employed by 1-2-3 users as a system, it is studied and analyzed as a system, and it is used by both Lotus and Borland as a system. See Borland S.J. Brief (Dkt. No. 141) at 41-61.[20]

In documents prepared outside the context of this litigation, Lotus routinely employed the language of 17 U.S.C. § 102(b) -- the litany of what is not copyrightable -- to describe the 1-2-3 menu command hierarchy. For example, the 1-2-3 Users Manual for Release 1.0 unambiguously characterized the hierarchy as a "system," stating "1-2-3's commands are organized into a multi-level menu system." Raburn Decl. at ¶ 12, RE 2, & Ex. A, RE 6.[21] And the same manual characterized a sequence of commands as a "procedure." Id. at ¶ 18, RE 4, & Ex. B, RE 7. Even the Paperback opinion uses the language of § 102(b) to describe the 1-2-3 hierarchy: "[t]he exact hierarchy -- or structure, sequence and organization -- of the menu system." Paperback, 740 F. Supp. at 65 (emphasis supplied).

d. Success of 1-2-3. 1-2-3 was a market success, but that success had little to do with the menu command hierarchy. As the lower court observed in Paperback, VisiCalc, the predecessor of 1-2-3, was programmed for use on the Apple II computer, which had limited functional capabilities. Id. When the IBM PC was introduced in August of 1981, the developers of 1-2-3 "exploited this opportunity" by designing

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[20] For example, the original 1-2-3 menu command hierarchy was studied and analyzed the way an engineer might study a system, procedure or method of operation, i.e., to make it operate more efficiently -- rather than the way a scholar might analyze a poem or painting. Lotus conducted studies of users' frequency of using different menu command sequences in order to help design menu command hierarchies for subsequent versions of 1-2-3. See Borland S.J. Brief (Dkt. No. 141) at 49-50; Ex. 10, App. 1149.

[21] The user documentation drafted to accompany the program also describes the purpose of the menu hierarchy as the functioning of a "system:" "A menu is simply a list displayed in the control panel that informs you of your options and lets you select one of them." Ex. 9 (Lotus 1-2-3 User's Manual (1983)) at L084455, App. 1148.

1-2-3 to take "advantage of the IBM PC's more expansive memory and more versatile screen display capabilities and keyboard." Id. at 66.

The former Lotus executives who had responsibility for the "launch" and initial marketing of 1-2-3 testified that the menu command hierarchy played no ascertainable role in the commercial success of the product:[22] "Any word would have sufficed for a command so long as the word conveyed to the user in a direct and simple way the function of the command." Raburn Decl. at ¶ 14, RE 3. The menu command hierarchy was simply not a qualitatively significant part of the product at the time of its introduction, either from Lotus' viewpoint or the viewpoint of users. Rather, aspects that were identified as important by potential customers, and the features that Lotus promoted, were features that would improve upon the perceived limitations of what was then the leading spreadsheet product, VisiCalc, – e.g., variable column width, highlighting within a specified range of cells, recalculation speed, full words on the screen (from VisiPlot), etc.[23] As the lower court observed, citing Borland's experts, "the words Lotus selected did not matter for 1-2-3's success." Borland III, 831 F. Supp. at 213.

e. The Role of Macros. The exact words and order of the Lotus menu command hierarchy were not important to the product's initial success, but they became vitally important to the success of later 1-2-3 versions and spreadsheets offered by Lotus' competitors because of the "macro" capability included within the first 1-2-3 release. Like the other 1-2-3 features, macro capability was not original to 1-2-3; it was taken from pre-existing products. Kapor Aff. at ¶ 69, App. 545; Raburn Decl. at ¶ 17, RE 4.

From the initial release of 1-2-3, the documentation for the product instructed users to create "keyboard

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[22] See Borland S.J. Brief (Dkt. No. 141) at 134-35; Raburn Decl. at ¶¶ 9-11, RE 1; Goldschmitt Decl. at ¶¶ 24-29, App. 530. For example, a contemporaneous Lotus memorandum prepared shortly before 1-2-3's introduction did not identify the command hierarchy as a feature that would cause Lotus 1-2-3 to be a success in the marketplace. Goldschmitt Decl. at ¶ 29, App. 531; Ex. 31 (Product Positioning Summary, September 7, 1982), App. 1180. This evidence was undisputed in the lower court; Lotus responded to the Raburn and Goldschmitt declarations only by labeling the declarants "disgruntled former Lotus employees," an accusation wholly unsupported by the record. See Plaintiff's Reply Memo. in Support of Motion for S.J. (Dkt. No. 153) at 70-71 n.53.

[23] See Borland S.J. Brief (Dkt. No. 141) at 135; Raburn Decl. at ¶ 13, RE 2; Goldschmitt Decl. at ¶ 28, App. 531.

macros." Raburn Decl. at ¶ 18, RE 4, & Ex. B, RE 7. "Macros" are application programs that users and third parties write, using the words and order of the 1-2-3 menu command hierarchy as a "command language." Kapor Aff. at ¶ 68, App. 545. According to the lower court, a simple macro is a stored "sequence of command terms" that can be invoked in a single keystroke, causing the entire sequence to execute. Paperback, 740 F. Supp. at 64. More complicated macros, performing sophisticated applications, are explained in the Borland IV opinion. See Borland IV, 831 F. Supp. at 227.

A macro represents a set of steps defined by the user that must be performed in a certain designated way -- that is, according to the words and order of the 1-2-3 hierarchy. Synonyms for the words and/or an alternative order simply will not work. See Borland II, 799 F. Supp. at 213-214. As the lower court observed in Paperback, "macros may contain many menu choices," and, hence,

> the exact hierarchy -- or structure, sequence and organization -- of the menu system is a fundamental part of the functionality of the macros.

Paperback, 740 F. Supp. at 65.

Obviously, a user cannot write a 1-2-3 macro -- i.e., use the words and order of the 1-2-3 hierarchy as a programming language -- unless those words and their order are displayed to the user. Similarly, if the user is writing the macro for use by others, those users cannot rewrite, debug (i.e., correct) or modify the macro (nor can the original author) without visual access to the 1-2-3 menu command hierarchy.[24] And, while some macros can be executed (i.e., run by the program) without the 1-2-3 command words being displayed on the screen, the lower court expressly found that macros which require input from the user to complete their execution -- "interactive macros" -- require the exact words and order of the 1-2-3 hierarchy displayed on the computer screen to enable execution. See Borland IV, 831 F. Supp. at 227.

2. The Development of the Original Quattro Product

Borland's objective for Quattro and Quattro Pro was to design spreadsheets that were far superior to

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[24] Lotus' counsel recognized that, in order to achieve complete macro compatibility with 1-2-3, "those words for the menu commands had to be displayed within each menu in the same order." Warfield Tr. at 60, App. 935. See also Bosworth Tr. at 140-141, 215-217, 358-361, App. 742; Liddle Tr. at 107-108, App. 863; Olson Decl. at ¶¶ 47-48, App. 717.

existing spreadsheet products, not to produce a Lotus look-alike or "clone." See, e.g., Bosworth Tr. at 301-03, App. 763. This objective was achieved with respect to both functionality and user interface. Even the lower court conceded that "Borland . . . designed an interface that in many respects looks substantially different from the 1-2-3 user interface." Borland II, 799 F. Supp. at 220. It took Borland's team of engineers nearly three years to produce Quattro. Bosworth Tr. at 58-59, 74, App. 724. From the time of its initial release in 1987, Quattro included enormous innovations over competing spreadsheet products, including Lotus 1-2-3.[25] In fact, Lotus has subsequently added features to 1-2-3 that were unique to Quattro at the time of its release.[26]

3. Lotus' Response to Quattro

In early 1988, Lotus' most senior executives, including Chairman and CEO Jim Manzi, convened a meeting to consider the assertion of a copyright infringement claim against Borland. Lemberg Tr. at 41-43, 90-91, App. 835. The general counsel of Lotus, Thomas Lemberg, advised his client at that meeting that the claim against Borland was as strong as the claim against Paperback, that it was essentially the same case, and that it presented identical issues. Id. at 62-63, 103-06, App. 838.

Charles J. Digate, the Lotus Senior Vice President whose responsibilities included 1-2-3 development, advertising and marketing, participated in the meeting. Digate Tr. at 10-12, App. 791. Digate testified that another participant in the meeting asked why Lotus should not "fire a warning shot across Borland's bow." Id. at 22, App. 794. In response, Digate suggested that Lotus should not do so because some form of notification would probably induce Borland to change its user interface to avoid an infringement claim. Id. at 23-25, App. 795. There was also a discussion at the meeting of the desirability of establishing a precedent in the Paperback case, and then pursuing Borland based on that precedent. Id. at 35, App. 798. Lotus admits that it deliberately decided to wait until Borland achieved significant market penetration before asserting its claim:

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[25] These features, affecting the program's functionality, user interface and menu command hierarchy, are set forth in nn.30-31, p. 52 of the Borland S.J. Brief (Dkt. No. 141).

[26] Examples of such features are set forth on p. 53 of the Borland S.J. Brief (Dkt. No. 141).

> While we considered that Lotus might well have a valid claim against Borland, we determined not to assert any such claim at the time. . . . [W]e could not yet determine whether the commercial threat posed by Quattro was sufficiently genuine to require us to incur the costs, diversion of management time and resources . . . .

Lemberg Decl. at ¶ 5, App. 623. As Chairman Manzi later acknowledged in his speech to his staff: We "didn't take them seriously enough." Ex. 36 (Nov. 16, 1990 Lotus Staff Meeting) at L049168, App. 1191.

More importantly, Lotus also decided at that meeting to conceal from Borland its belief that Quattro was infringing. As the lower court found:

> Lotus adopted a policy of not commenting on possible infringement by, or legal action against, Borland.

Borland III, 831 F. Supp. at 218. The principal reason for this decision was to prevent Borland from seeking an immediate adjudication of its right to market and sell Quattro by filing a declaratory judgment action. Lemberg Tr. at 118-119, 148, App. 846. Lotus implemented this policy by instructing its personnel not to say anything that would inform Borland as to Lotus' true intentions. Id. at 148-153, App. 848.

4. The Development of Quattro Pro

a. Product Development. In September of 1988, Borland acquired a spreadsheet product known as "Surpass" for $2.4 million. Surpass was a Lotus clone: the "program's only menu tree was a copy of the 1-2-3 menu tree." Borland III, 831 F. Supp. at 218. Borland immediately withdrew Surpass from the market and spent over a year re-engineering it to "become the Quattro Pro product, having a 1-2-3 compatible menu tree as just one of the possible menu trees available." Id.; Kohn Decl. at ¶ 24, App. 561.

Quattro Pro was first introduced in 1989 and won every major award for spreadsheet excellence given in the software industry. Quattro Pro invariably ranked substantially higher than 1-2-3 in head-to-head reviews and user comparisons, including those conducted by Lotus.[27] The user interface of Quattro Pro is different in every respect (save some of the command words) from that of the 1-2-3 versions at issue in this case.

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[27] See Ex. 1 and 2, App. 1134; Borland S.J. Brief (Dkt. No. 141) at 2 n.3.

Quattro Pro uses a cascading pull-down menu presentation, as opposed to 1-2-3's two-line moving cursor. 1-2-3 can only be operated with a keyboard; Quattro Pro is designed to be used with a mouse. 1-2-3 commands are presented only as words; Quattro Pro also presents commands as graphical images such as icons or mouse buttons. See Borland S.J. Brief (Dkt. No. 141) at 116-134.

The Quattro products were shipped with a number of different menu command hierarchies. In both products, a completely original menu command hierarchy is the "native" or default mode that is automatically presented to the user. The user is required to install any of the alternative hierarchies, including the 1-2-3 compatible hierarchy. In both the "native" and "compatible" modes, the original Quattro has seven times as many commands as 1-2-3, Release 2.0, and Quattro Pro has eleven times as many commands.[28] In the case of both Quattro and Quattro Pro, the visual elements of the "native" interface are carried over to the 123-compatible modes. Thus the 123-compatible mode of Quattro uses pop-up menus, displays status information, highlights cells, etc. The 123-compatible mode of Quattro Pro uses pull-down menus, displays graphical images, employs a mouse, etc.[29]

b. The Need for 1-2-3 Hierarchy. The 1-2-3 hierarchy command sequences were incorporated into the visual display of the compatible mode because there was no other way to achieve complete macro compatibility – i.e., to enable users to run, modify and debug macros originally created for use in 1-2-3.[30] The designers of the Borland products neither contemplated nor desired that the 1-2-3 commands be used routinely in place of the native command hierarchy, and Lotus' own studies confirm that Quattro users

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[28] The menus that provide 123-compatibility in Borland's products are not merely a copy of the 1-2-3 command hierarchy. Rather, the 123-compatible menus also contain all of the functionality of the command sets from the native mode.

[29] As shown in a screen-by-screen comparison of the interface of Lotus 1-2-3 and Quattro Pro's 123-compatible interface, there is no identity in visual presentation or even in command names in any screen, at any point in the hierarchy. See Quattro Comparison Books (Dkt. Nos. 81, 82); Quattro Pro Comparison Books (Dkt. No. 83). Of the thousands of computer screens displayed by Quattro Pro during various possible phases of its operation, the vast majority have no equivalent in 1-2-3 whatsoever. Those screens that do have an equivalent differ markedly in appearance (and even text) from the corresponding 1-2-3 screen. Id.

[30] P. Kahn Tr. at 65-66, 99-101, 103, RE 8; Bosworth Tr. at 106, 108-109, App. 737.

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use the Quattro native menus for spreadsheet functionality, reserving the 123-compatible modes to "run macros," which "continues to be important, because users frequently exchange files with 1-2-3 users."[31]

Id. at L032524, App. 1159. These documents explain that 1-2-3 continued to be successful because macros enabled 1-2-3 to "lock in" those users who first selected it over VisiCalc:

> [E]arly releases of 1-2-3 were successful in encouraging casual users to automate spreadsheet routines through the straight forward mimic of first letter menu commands.

Ex. 38 (Houdini Analysis of Competitive Products) at L047694, App. 1196.[32] As a result of macros, 1-2-3 became, in the words of Lotus' own documents, "entrenched." Ex. 39 (Review of Excel) at L046265, App. 1198. Therefore, unless a new entrant in the spreadsheet market can compete for the business of the "vast majority of PC users" who initially chose 1-2-3 over VisiCalc, competition will be limited solely to new spreadsheet users, a minor portion of the true market. There would be little, if any, business to compete for;

Ex. 27 at L034477, App. 1177.

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[31] P. Kahn Tr. at 65-66, RE 8; Bosworth Tr. at 148, App. 748; Ex. 27 at L034481, App. 1178.

Id.

A study conducted by Burke Marketing Research, one of the largest and most respected market research organizations in the country, yielded almost exactly the same results. According to that study, only about 12% of Quattro and Quattro Pro users use the 123-compatible menus. Indeed, two-thirds of those who have ever used the 123-compatible menus cite the running of 1-2-3 macros as a reason for doing so, and 35% use the compatible menus only when someone else gave them a worksheet with 1-2-3 macros. Boyd Decl. at ¶ 9, App. 345.

[32] This is a competitive hurdle Lotus was not required to surmount in displacing VisiCalc, because VisiCalc had no macro facility.

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"Macro compatibility" with the Release 2.0 hierarchy is, according to Lotus documents, "the most important item" to these spreadsheet users. "Macro compatibility is KEY." Ex. 14 at L032534-35, App. 1160. Even the documents of third parties considering the purchase of spreadsheet products show that they view the "ability to run macros . . . exactly as they would with Lotus" as a "key issue." Ex. 41 at L046289, App. 1202. In short, 1-2-3 users did not continue to support Lotus' product because they viewed it as a superior product either in terms of user interface or function.

Ex. 27 at L034482, App. 1179.

5. Lotus' Response to Quattro Pro

By the middle of 1990, Lotus had recognized the competitive threat posed by Quattro Pro and filed this lawsuit. Lotus viewed users who chose 1-2-3 when it first came out and created macros with the 2.01 menu command hierarchy as Lotus' own private preserve to be exploited commercially without interference from competition. On November 16, 1990, Lotus Chairman Manzi explained to his sales staff that Lotus needs "to do whatever it takes to drive" Borland "out of our business." Ex. 36 at L049168, App. 1191; Manzi Tr. II at 38-40, App. 890. Manzi went on to explain:

> When there's more competition, the cost of doing business goes up . . . increased development costs when reacting as opposed to leading.

Ex. 36 at L049167a-8, App. 1190.

The Lotus strategy of using litigation to squelch competition was successful. At the beginning of 1988, less than two months after the original Quattro was released (and about two years before Quattro Pro was released), Lotus announced that 1-2-3 held of the spreadsheet market, and that

Ex. 24 (1988 Sales Speech) at L048962, App. 1172. In 1990, shortly

after Quattro Pro was released (and after this lawsuit was filed), Lotus' President and CEO announced that 1-2-3 held a "70% market share." Ex. 37 (Manzi New York 1990 PC Users' Group Speech) at L048946, App. 1194. Finally, in August of 1992, at the time that Borland removed the 123-compatible mode from its products in response to the Borland II decision, Lotus claimed, based upon data published by the Software Publishers Association, that 1-2-3 still had 70% of the market. Wall St. J., Aug. 13, 1992, at A5, App. 1319.

C. Procedural History of the Case

1. Whelan and Paperback

The Whelan decision, upon which the lower court's Paperback reasoning is based, was decided by the Third Circuit in late 1986. Whelan Assoc., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222 (3d Cir. 1986), cert. denied, 479 U.S. 1031 (1987). Not coincidentally, the very day the Supreme Court denied Jaslow's petition for a writ of certiorari, January 12, 1987, Lotus filed its lawsuit against Paperback.

The Paperback decision was rendered on June 28, 1990, and Lotus filed this lawsuit against Borland on July 2, 1990. The Paperback lawsuit was settled in October of 1990 without an appeal to this Court, and Paperback went out of business. On October 17, 1990, Lotus' CEO, Jim Manzi, bragged in a speech to the New York PC Users Group that Paperback had agreed to a permanent injunction "and no appeal." Ex. 37 at L048940 (emphasis in the original), App. 1193. On that same date, Arthur R. Miller, who identified himself to the press as having "advised Lotus on the [Paperback] case," defended the Paperback settlement to United Press International, arguing that the decision "stands as a precedent" for Lotus and the settlement "eliminates any risk that it might get overturned on appeal." Barry Flynn, Lotus Settles Patent Suit, UPI, Oct. 17, 1990, available in LEXIS, Nexis Library, UPI File.

2. Borland I and II

On May 7, 1991, Lotus filed its initial motion for summary judgment, and on September 30, 1991, Borland filed its cross-motion for summary judgment. On March 20, 1991, the lower court published its Borland I decision, 788 F. Supp. 78, denying both motions. The lower court held that Paperback was not dispositive of the outcome of this case because Paperback held copyrightable only the user interface "as a

whole." Borland I, 788 F. Supp. at 81. Furthermore, the court found that Lotus had "not formulated for the court or for Borland its precise contentions . . . as to which elements of 1-2-3, separately or in combination, were copyrightable or were copied." Id. at 98.

Both parties filed renewed motions for summary judgment on April 23, 1992. In its brief, Borland framed a very precise legal question:

> So that the record is clear, Borland believes that the only similarity between the products is with respect to the menu command hierarchy and the menu command hierarchy is uncopyrightable, so that it must be eliminated from the Concrete Machinery substantial similarity (mixed law and fact) illicit copying test. The resulting works (without the menu command hierarchy) are so demonstrably different from each other that Borland is entitled to summary judgment as a matter of law.

Borland's Memo. in Support of Renewed Motion for S.J. ("Borland Renewed S.J. Brief") (Dkt. No. 168), at 18-19. While the renewed motions for summary judgment were under consideration, the Second Circuit decided Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992). Borland brought this decision to the lower court's attention, and there was extensive briefing on the applicability of Altai to this case.

On July 31, 1992, the lower court published its Borland II decision, holding copyrightable the 1-2-3 menu commands, menu command hierarchy, "macro language" and "keystroke sequences." The precise holdings of the lower court are more clearly set out in the Procedural Order that accompanied the opinion. See Addendum. The lower court's principal holding was that

> [t]he menu commands and menu hierarchy of Lotus 1-2-3 have expressive aspects and are copyrightable.

Procedural Order at 18. The court based its holding of copyrightability with respect to "keystroke sequences" and the 1-2-3 "macro language" solely on the fact that these features (as defined by the court) incorporate the 1-2-3 menu command hierarchy. Borland II, 799 F. Supp. at 206, 219.[33]

The lower court also held as a matter of law that Borland had copied these features into its programs

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[33] 1-2-3 keystroke sequences are sets of keys that are depressed in the 123-system to produce a result. For example, the keys "R," "F," "C" are depressed to format numbers in currency notation. See Borland II, 799 F. Supp. at 208, 213. Similarly, the lower court defined "macro language" to include only the use of the words and order of the 1-2-3 commands in the writing of macros programs, leaving aside other more sophisticated aspects of the Lotus macro language. See Borland II, 799 F. Supp. at 206.

and, hence, that "the Quattro programs infringe 1-2-3." Borland II, 799 F. Supp. at 221. However, the lower court said it could not determine the "precise scope of Borland's infringement" and "the nature and scope of remedies for the case" without a jury trial on the issues of (1) whether Borland copied 1-2-3's long prompts; (2) whether the long prompts merged with their respective functions; and (3) whether functional constraints limited the "number of possible ways in which the Lotus 1-2-3 menu command hierarchy could have been arranged at the time of its creation." Borland II, 799 F. Supp. at 221; Procedural Order at 20. In the Procedural Order, the court ordered the parties to submit proposed jury interrogatories on these issues and set trial to begin on Nov. 2, 1992. Procedural Order at 1, 7.

Immediately following the court's Borland II decision, Borland pulled the 123-compatible mode from its products. Kohn Supp. Decl. at ¶ 12, App. 617. Borland then moved to certify for interlocutory appeal the question of a menu command hierarchy's copyrightability. See Memo. in Support of Borland's Motion to Certify (Dkt. No. 202). The lower court denied Borland's motion, Tr. of Sept. 23, 1992 Hearing at 54, App. 18, and set trial to begin on November 2, 1992, Procedural Order at 1. On October 16, 1992, the parties attended the last scheduled pretrial conference, but the court informed the parties that trial could not be held until February 1, 1993. Tr. of Oct. 16, 1992 Hearing at 2, 12, App. 20. Borland again moved for certification, and the court again denied Borland's motion. Id. at 15-17.

3. Key Reader Complaint

On December 7, 1992, Lotus moved to file a supplemental complaint alleging that a limited compatibility feature of Quattro Pro, known as the "Key Reader," was infringing. The "Key Reader" feature, described in some detail in the Borland IV opinion, is a macro translator that permits execution of some 1-2-3 macros, in a manner largely transparent to the user. It does not allow debugging or modification of macros, nor does it permit the execution of most interactive macros. This limited compatibility feature does not display a copy of the 1-2-3 menu commands on the screen. Borland IV, 831 F. Supp. at 226.

The Key Reader was introduced in October of 1990, as part of Version 2.0 of Quattro Pro. It was fully described in the on-line documentation that was available to the user when the program is installed. Kohn

Supp. Decl. at ¶ 6, App. 614. All versions of Quattro Pro sold after October of 1990 (and before the Borland IV opinion) contained the Key Reader feature clearly listed in the menu command hierarchy of the native mode so that it could be invoked by the user. Throughout the summer of 1991, Lotus questioned Borland witnesses about the Key Reader and clearly knew of its existence and capabilities. See, e.g., Liddle Tr. at 117 App. 866. Yet Lotus purposely waited over a year to make its claim until a time it considered "appropriate."[34]

Lotus' motion to supplement its complaint was heard on January 14, 1993, more than two months after trial was originally scheduled to begin. The court began the January 14 pretrial conference by granting Lotus' motion to supplement its complaint, over Borland's strenuous objection that this new claim itself prejudiced Borland and that further delay to adjudicate the new issue involving new products would result in even greater prejudice. See, e.g., Tr. of Jan. 14, 1993 Hearing at 9, 13, App. 30.

The parties and the court then discussed the particular issues to be tried. With respect to the long prompts issue, Lotus' counsel argued that the "precise wording of long prompts doesn't really matter to anyone," that the question of whether Borland copied the "wording" of Lotus' long prompts "is not a decision of commercial significance," that "[i]t's not going to be an issue on damages," and that injunctive relief would not be sought as to the "precise wording of the long prompts." Id. at 53, App. 35. Therefore, Lotus' counsel concluded that if there was not going to be a jury trial on any other issue, he would "take what is conceded" by Borland. Id. App. 35.

With respect to the functional constraints issue, Lotus' counsel said that he did not "think that [a] trial is worth everybody's effort, time and expense." Id. at 57, App. 36. Borland agreed and waived its right to a jury trial, noting expressly that it did not "want to go through some long stipulation procedure." Id. at 69, App. 44. A discussion followed in which the court stated that it contemplated an "argument" that "wouldn't take more than a day," id. at 73, App. 48, based on written designations of record, id. at 70-71, App. 45.

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[34] Lotus stated on April 24, 1992 that it was aware of the Key Reader and intended to "pursue this issue at the appropriate time." Plaintiff's Memo. of Law in Support of Renewed Motion for S.J. at 43 n.54, App. 1039.

Notwithstanding the agreements worked out in open court, by letter dated January 21, 1993, Lotus insisted that, unless Borland waived a substantive contention -- that it did not copy the 1-2-3 long prompts -- Lotus would insist that Borland produce live witnesses for cross-examination at the hearing. See Borland's Prehearing Procedural Statement (Dkt. No. 319) at 11.

4. Borland III

When Borland appeared for the hearing on February 1, the lower court made it clear, for the first time, that it would not proceed without a stipulation signed by both parties. The court stated that, if no stipulation could be worked out, there would be no trial until March 1, 1993 -- "if, indeed, we can get it ready by that time." Trial Tr. of Feb. 1, 1993 at 42, App. 80. Given only the option of further delay, Borland signed the stipulation later set forth in the lower court's Borland III opinion. Borland III, 831 F. Supp. at 208. As part of that stipulation, Lotus agreed it would not contend that Borland copied the long prompts of 1-2-3, Borland agreed it would not contend that it had not copied those long prompts, and neither party would contend that the issue of copying the long prompts "is material to any other issue that has been or will be resolved in this case." Id.

Following execution of the stipulation, the court held a bench trial on a stipulated written record. On June 30, 1993 the court published its Borland III decision, which it modified on August 19, 1993. In that opinion, the lower court rejected Borland's affirmative defenses of laches and estoppel and held that the "set of executable operations in Lotus 1-2-3 is large and the possible structural variations are enormous." Borland III, 831 F. Supp. at 215.

5. Fair Use

On February 26, 1993 Borland moved to amend its answer to assert a defense of "fair use" to Lotus' claim of copyright infringement based on Borland's display of the Lotus 1-2-3 words and menu structure. On March 30, 1993, the court granted Borland's motion to amend its answer, but the next day the court orally denied Borland's fair use defense without requiring Lotus to proffer any evidence on the issue, pursuant to Fed. R. Civ. P. 52(c). Trial Tr. of March 31, 1993 at 52 (reprinted in Addendum).

6. Borland IV

Beginning on March 31, 1993, the lower court held a three-day bench trial on a stipulated written record (with "live" demonstrations) on Lotus' claims of infringement against the Key Reader and Borland's defenses to those claims. On August 12, 1993, the lower court issued the Borland IV decision, holding the Key Reader feature infringing and denying all of Borland's defenses.

The court based its holding on its conclusion that the data file internal to Quattro Pro that produced the Key Reader functionality contained a copy of the structure of the 1-2-3 "menu tree," but not the menu words or their order. Borland IV, 831 F. Supp. at 228. The court expressly noted that the structure of the menu tree was nothing more than the "selection and arrangement of the executable operations in Lotus 1-2-3," id. at 231, but protected this "structure" under the copyright law as a "non-literal aspect of the computer program code," id. at 232-233. The lower court's Borland IV decision acknowledged that

> Borland's copy may use a different way of presenting the menu structure than is contained within the Lotus code or displayed to the user while running Lotus 1-2-3 [but that] what was copied by Borland (details of expression of the menu structure) is virtually identical to details of expression of the Lotus 1-2-3 program's menu structure.

Id. at 234.

Borland's Key Reader feature does not display any 1-2-3 menus on the screen. Id. at 226. It consists of a data file (internal to the program) which contains only letters or "markers" (but not words) representing the Lotus menu structure. When a macro contains a particular letter, or sequence of letters, the Key Reader identifies those letters, translates them into a Borland menu equivalent, and executes that menu equivalent. Kohn Supp. Decl. at ¶ 3, App. 612; Warfield Tr. at 114-115, App. 975. A redacted copy of the Key Reader file is contained at App. 1328.

In Borland IV, the lower court held that there are two methods to execute some 1-2-3 macros, "one-time macro translation," and "on-the-fly" interpretation. Borland IV, 831 F. Supp. at 230. The lower court held that it is impossible to provide one-time translation without "copying" the 1-2-3 menu structure, but declined to decide whether one-time translation was a copyright infringement. Id. On the other hand, the

lower court held that it was also impossible to provide "on-the-fly" interpretation (the method used by Borland) without including a "copy" of the Lotus menu structure, id., but held that method infringing because it employs the 1-2-3 menu structure, id. at 235. As a result of the lower court's rulings in this case, Borland cannot offer 1-2-3 compatibility to users. In contrast, Microsoft's Excel product not only offers macro compatibility, but displays the 1-2-3 menu command hierarchy to the user on the computer screen.[35]

ARGUMENT

I. THE LOWER COURT ERRED IN EXTENDING COPYRIGHT PROTECTION TO THE 1-2-3 MENU COMMAND HIERARCHY.

A. The Lower Court Erred in Adopting a Methodology for Determining Copyrightable Subject Matter Pursuant to which the Existence of a "Choice" Becomes the Touchstone of Copyrightability.

1. The lower court's test is derived from the Whelan methodology, which has been conclusively rejected by recent case law.

The Third Circuit was the first court of appeals to propose a test to determine the extent of copyrightability for computer programs. Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222 (3d Cir. 1986), cert. denied, 479 U.S. 1031 (1987). Under the Whelan test, the "function" of the computer program is the work's protectable idea, "and everything that is not necessary to that purpose or function would be part of the [protectable] expression of the idea." Id. at 1236. The lower court in Paperback fashioned a three-part test for copyrightability based on the Whelan formulation,[36] notwithstanding the fact that the Whelan test was widely criticized in the academic community as poorly reasoned and overly protectionist.[37]

Between the first and second decisions in this case, the Second Circuit rendered its decision in

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[35] See RE 16; Trial Tr. of April 2, 1993 at 94-96, 105-106, App. 333. The "Software Library" (Dkt. No. 360) includes Excel 2.1, Excel 3.0 and Excel 4.0.

[36] See Gates Rubber Co. v. Bando Chem. Indus., Ltd., 28 USPQ 2d 1503, 1514 (10th Cir. Oct. 19, 1993); Arthur R. Miller, Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?, 106 Harv. L. Rev. 977, 999 (1993) ("Judge Keeton relied on an important premise underlying the [Whelan] structure, sequence, and organization formulation").

[37] See, e.g., Altai, 982 F.2d at 705-706 (citing cases, treatises, and articles).

Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992). The Second Circuit expressly rejected the Whelan approach, expressly adopted the "Abstraction-Filtration-Comparison" test advocated by amici in this case,[38] and expressly rejected Paperback's "incentive-based arguments" as having a "corrosive effect on certain fundamental tenets of copyright doctrine." Id. at 712. The Altai test was subsequently adopted by the Ninth and Tenth Circuits.[39]

The Altai court's rejection of Whelan's approach was unequivocal, referring to the Whelan analysis, and in particular the protection of structure, sequence, and organization, as "inadequate," "flawed," "suspect," and "outdated." Altai, 982 F.2d at 705-706. But the Altai court reserved its most severe criticism of Whelan for "the sweeping scope of copyright protection engendered by the Whelan rule," id. at 712, which in the view of the Second Circuit enables "first comers" to "lock up" basic technology, id.[40]

The lower court made no changes to its test in light of the Altai decision. Rather, the lower court asserted that its "standard for determining copyrightability" was "compatible" with the Second Circuit's Altai test for determining "substantial similarity,"[41] a proposition one commentator has recently characterized as

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[38] Eleven of the nation's leading copyright law professors filed an amicus brief in the lower court prior to the Borland I decision, urging the court to abandon its Paperback test for determining copyrightability in favor of the "filtration" approach advocated by the M. Nimmer & D. Nimmer, Nimmer on Copyright (1993) ("Nimmer on Copyright"). See Brief Amicus Curiae of Copyright Law Professors ("Copyright Law Professors Brief") (Dkt. No. 102) at 7-8.

[39] Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1525 (9th Cir. 1992); Gates Rubber, 28 USPQ 2d at 1514-1515.

[40] The Altai court rejected Whelan's rationale as "suspect because it is so closely tied to what can now be seen -- with the passage of time -- as the opinion's somewhat outdated appreciation of computer science." 982 F.2d at 706. Whelan, in effect, puts the burden on the defendant to show that copyright protection will disserve society's interests, while Altai puts the burden on the copyright owner to show that protection is in society's best interests. In addition, "a profound and consequential methodological difference separate the two approaches." See 1 Paul Goldstein, Copyright, § 2.15.2 at 46-47 (Supp. 1993) ("Goldstein Treatise").

The only commentary that has viewed Altai as less than a "marked deviation" from Whelan was written by counsel to Lotus and International Business Machines Corp. For example, Arthur R. Miller, who "advised Lotus on the [Paperback] case," subsequently filed an amicus brief as "counsel" for Lotus Development Corp. before the Tenth Circuit in Gates Rubber Co., arguing that Whelan and Altai are consistent. See Brief of Amici Curiae Computer and Business Equipment Manufacturers Association, et al. (including Lotus) at 3 n.3, reprinted in Computer L. Rep., March 1993, at 223 (cover page at RE 19).

[41] Borland II, 799 F. Supp. at 211.

"border[ing] on the ludicrous."[42] The lower court freely conceded that, although it viewed the two tests as "compatible substantively," the Paperback/Borland test is "different in methodology." Borland II, 799 F. Supp. at 212. This difference in "methodology" is dispositive of the outcome of this case and is central to the numerous errors made by the lower court.

2. The lower court improperly used a "substantial similarity" test to determine copyrightability.

The lower court approached the issue of copyrightability as if it were a question of first impression. See, e.g., Borland I, 788 F. Supp. at 90. From the outset of its analysis in Paperback, the lower court took the position that "the legal test for defining copyrightability" had not yet "been precisely defined either in the copyright statute or in precedents." Paperback, 740 F. Supp. at 59.

This is incorrect both as to the statute and the case law. The copyright statute expressly addresses the subject matter of copyright at § 102. That section has two subparts. The first, § 102(a), contains both a definition and examples of copyrightable subject matter. Section 102(b) expressly sets forth that which is not copyrightable subject matter. Section 102 has a rich and detailed legislative history. It was added to the copyright statute in 1976 expressly to limit the scope of copyright protection. Congress was concerned that easily obtainable copyright protection should not be available for the utilitarian or functional aspects of works. Congress manifested this concern by placing § 102(b) into the copyright statute in the first place and by emphasizing its applicability to computer programs. See infra at 33-36.

There is also more than 100 years of case law prescribing the limits of copyright protection for functional works like the 1-2-3 hierarchy. This extensive body of case law began in 1879 with the Supreme Court's seminal decision, Baker v. Selden, 101 U.S. 99 (1879). That case and its progeny hold that systems, methods, processes, procedures – and words "incident" thereto – are not copyrightable subject matter. See Altai, 982 F.2d at 704.

The lower court deferred to neither the statutory nor the case law definitions of copyrightability.

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[42] Dennis S. Karjala, Recent United States and International Developments in Software Protection, 35 n.115 (Sept. 1993) (on file with the European Intellectual Property Review).

Rather, claiming it was "laboring in territory that is uncharted," Borland I, 788 F. Supp. at 90, the lower court created its own test for identifying copyrightable elements of a work, but erroneously formulated that test using techniques in the case law intended to identify similarities in what is uncontestedly copyrightable subject matter, like program code or the text of a play.

Both the Altai and the lower court's test referred to and built upon Judge Learned Hand's "patterns of abstraction" test.[43] However, Learned Hand's test and the Altai test are tests for "substantial similarity" between copyrightable works. They are not tests for determining copyrightability in the first place. As the Tenth Circuit recently observed, "the abstraction test does not identify the protectable elements of a program." Gates Rubber, 28 USPQ 2d at 1509. The lower court's test employs a methodology intended to identify similarities in copyrightable works and erroneously applies that methodology to identify copyrightable subject matter. The lower court could not have stated its error more clearly:

> The Second Circuit referred to its test as one of 'substantial similarity' and did not use the term 'copyrightability' for any part of the test. I do not understand this difference of terminology to have substantive implications, however, and more especially, not for this case.

Borland II, 799 F. Supp. at 215.

Under the lower court's methodology, copyrightability turns on the existence of a "choice." If the lower court wished to apply the "abstractions" test, it should at least have applied that test to the program's code, recognized the hierarchy as uncopyrightable § 102(b) material, and granted summary judgment for Borland because all other aspects of the programs at issue are dissimilar.

3. The lower court's methodology, under which the mere existence of a "choice" makes subject matter copyrightable, produces bizarre results that are inconsistent with the nation's copyright protection scheme.

Like the Whelan test, the lower court's test identifies the "idea" and characterizes all other elements as "expression." The lower court's test calls upon the decisionmaker first to identify the system, idea or process, then bases a determination of copyrightability on whether "an alleged expression" includes "elements

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[43] See Altai, 982 F.2d at 706-707; Paperback, 740 F. Supp. at 60-61. Judge Hand set forth the "abstractions" test in Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).

of expression" not essential to every expression of the system, or process. See, e.g., Borland II, 799 F. Supp at 211.

Under the lower court's methodology, the mere existence of a choice makes subject matter copyrightable. Or, stated in the jargon of copyright lawyers, the only delimiting factor on the scope of copyright protection recognized by the lower court is "merger." Under the lower court's methodology, if there is more than one method or process for doing something, the method originally chosen is protectable under the copyright law, regardless of the absence of copyrightable subject matter.[44] But, the mere existence of a choice does not turn uncopyrightable subject matter into copyrightable "expression." One might equally argue that the engines of a Ferrari and a Volkswagen embody different "expressions" of the process of internal combustion, or that the Qwerty and Dvorak keyboards are different ways of "expressing" the means by which the user operates a typewriter.[45]

Application of the lower court's methodology has caused it to protect items which the Copyright Office has repeatedly held uncopyrightable and has refused to register. Thus, for example, the lower court held in Borland II that "menu commands" and a "menu command hierarchy" constitute copyrightable subject matter. The Copyright Office has repeatedly said the contrary, both in its internal instructions to its own examiners and to copyright applicants.[46] Similarly, the lower court held that the 1-2-3 "macro language" constitutes copyrightable subject matter. But the Copyright Office has consistently taken the position that computer

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[44] The lower court explained that the 1-2-3 user interface included "identifiable elements of expression" because "[a] very satisfactory spreadsheet menu tree can be constructed using different commands and a different command structure from those of Lotus 1-2-3." Borland II, 799 F. Supp. at 217. The court went on to note that the menus in 1-2-3 could be permuted "to generate literally millions of satisfactory menu trees." Id. See also Borland II, 799 F. Supp. at 214 ("[T]he initial choice of the command set was a free choice").

[45] The Dvorak keyboard arrangement was the subject of U.S. Letters Patent No. 2,040,248. See Borland S.J. Brief (Dkt. No. 141) at 91 n.54. Lotus' former PC Spreadsheet Division Head, Frank Ingari, likened the use of 1-2-3 by experienced users to the use of the Qwerty keyboard by typists. Ingari Tr. at 103, App. 805.

[46] Compare, e.g., Borland II, 799 F. Supp. at 219, with Brief Amicus Curiae on Behalf of the Register of Copyrights, Appendix VIII, at 6, 12, App. 1017 ("[M]enu listings . . . are functionally determined and are generally not registrable."); Schrader Tr. at 25-26, App. 922; Ex. 20 at 3, App. 1166; Ex. 19, App. 1162 ("[M]enu screens and similar functional interfaces consisting of words or brief phrases in a particular format are not copyrightable.").

"languages" are uncopyrightable.[47] And the District Court explicitly protected the "structure" of the menu command hierarchy while the Copyright Office has instructed applicants not to refer to "structure, sequence, and organization" on the authorship line of applications or the application will be rejected.[48] Ultimately, the lower court's improper methodology caused it to protect precisely what § 102(b) says is uncopyrightable -- the selection and arrangement of executable operations. Borland IV, 831 F. Supp. at 231.

B. The "Selection and Arrangement of Executable Operations" are not Protected as "Non-Literal Aspects" of a Computer Program.

1. Congress intended to proscribe copyright protection for the selection and arrangement of executable operations.

In Borland II, the lower court prohibited Borland from making a spreadsheet that operated in a manner similar to 1-2-3, but never fully articulated its legal basis for doing so until its final opinion in the case. The lower court repeatedly suggested in its first three opinions that the existence of a choice of words or functions was the touchstone of copyrightability.[49] However, in Borland IV the lower court finally stated that it was protecting the "structure" of the "menu tree" or the "selection and arrangement of executable operations" as a "non-literal aspect" of the computer program itself. Borland IV, 831 F. Supp. at 232-233.

The Altai decision extensively discussed the appropriate level of protection for a program's "non-literal elements." A computer program, as defined in 17 U.S.C. § 101 (a "set of instructions" used "to bring about a certain result"), is a "literary work." The literal elements of the program, the source code and object code, are copyrightable in the same way that the literal text of a play would be copyrightable. Altai, 982 F.2d at 702. But the menu command hierarchy (the "structure" of the "menu tree") is not literal code ("the set of instructions") and, hence, must be protected as a "non-literal element," if it is to be protected by copyright at all.

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[47] Compare, e.g., Borland II, 799 F. Supp. at 219; Procedural Order at 18, with Compendium II of Copyright Office Practices, the Library of Congress, § 325.02(c) at 300-26, § 326 at 300-32 (1984).

[48] Compare, e.g., Borland IV, 831 F. Supp. at 231, 233, with Ex. 10 at L031518, App. 1153.

[49] Borland II, 799 F. Supp. at 213-14, 217-18; Borland III, 831 F. Supp. at 231-217.

Within the genre of artistic literary works like plays, courts have created the "paraphrasing" doctrine, also known as the concept of "comprehensive nonliteral similarity," as a basis for copyright infringement. See 3 Nimmer on Copyright, § 13.03[A][1] at 13-29. If, for example, someone made an unauthorized translation into French of a play originally written in English, the authors would have a claim for copyright infringement, notwithstanding the fact that the original work (in English) and the unauthorized "copy" (in French) do not share any common literal expression. They are not "substantially similar" in terms of literal expression, but they are similar with respect to the "structure" of the play, each of its acts, each of its scenes, and, for that matter, each of its sentences of dialogue.

Certainly, because Congress decided to apply copyright protection to the code of a computer program, it is logical to assume that traditional copyright doctrines for literary works should apply to some extent to the code of a computer program, which is also a literary work. See, e.g., Whelan, 797 F.2d at 1233-34. Thus, if a programmer writes a program in "BASIC" and someone "translates" that program into the programming language "C," the second program is an unauthorized copy, notwithstanding the absence of literal similarity at the code level. The two programs are "substantially similar" with respect to their detailed "structure." Hence, a number of courts have applied the doctrine of "comprehensive non-literal similarity" to protect the "structure, sequence and organization" of a computer program, at least to some limited extent. See, e.g., Altai, 982 F.2d at 702-704.

But the application of the concept of "comprehensive non-literal similarity" to computer programs has been controversial because, unlike artistic literary works (such as plays), computer programs are utilitarian objects -- they perform a function.[50] Copyright, unlike patent, is a very broad, long-lasting, easily obtainable type of protection, and Congress has always taken care to ensure that easily obtainable copyright protection would not be available for the utilitarian or functional aspects of works.[51] Congress manifested this concern

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[50] Altai, 982 F.2d at 704; 1 Goldstein Treatise, § 2.15 at 195 (1989).

[51] See, e.g., H.R. Rep. No. 1476, 94th Cong., 2d Sess. 54-55 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5667-68.

by including § 102(b) in the copyright statute in the first instance, and by emphasizing its applicability to computer programs. Indeed, the legislative history of § 102 manifests an unwavering congressional intent to limit the scope of copyright protection for computer programs so as to avoid precisely the result that has occurred in the lower court.

Prior to the 1976 amendments to the Copyright Act, the scope of copyrightable subject matter was defined by section 4 of the 1909 statute as "all the writings of an author." 17 U.S.C. § 4 (1909). The 1909 statute had no equivalent of § 102(b). In 1976, Congress chose to replace the phrase "all the writings of an author" with the term "works of authorship" in order to narrow the scope of copyright protection. See 17 U.S.C. § 102(a). The term "works of authorship" was first proposed by the Copyright Office in the Copyright Register's 1961 Report on the General Revision of the U.S. Copyright Law. The report explained that there are types of works which may be "writings" in the Constitutional sense, but which Congress did not intend to be copyrightable subject matter, and recommended that Congress change the wording of the statute to reflect the narrower understanding of copyrightable subject matter. As the 1961 Report notes:

> [W]e do not think that the language of the statute should be so broad as to include some things – typography, broadcast emissions, and industrial designs are possible examples – that might conceivably be considered the "writings of an author" but are not intended by Congress to be protected under the copyright law. We believe that the extension of the copyright statute to entirely new areas of subject matter should be left to the determination of Congress rather than to the chance interpretation of an omnibus provision.[52]

Congress adopted the Copyright Register's suggestion in the 1976 Copyright Act, for the very reasons set forth in the Register's Report.[53]

The 1976 Congress also specifically identified areas that were excluded from protection in § 102(b). Section 102(b) had its genesis in a 1966 House Report accompanying H.R. 4347, a copyright bill proposed by the 89th Congress in which no § 102(b) was proposed. The 1966 House Report used precisely the same

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[52] Register of Copyrights, Register's Report on the General Revision of the U.S. Copyright Law 11 (1961); see also Register of Copyrights, Supplementary Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law: 1965 Revision Bill, 89th Cong., 1st Sess. 3 (H.R. Comm. Print 1965).

[53] See, e.g., H.R. Rep. No. 1476, 94th Cong., 2d Sess. 51-52 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5664-65; S. Rep. No. 73, 94th Cong., 1st Sess. 50-51 (1975).

language in discussing the types of work covered by the term "works of authorship" as the 1976 House Report, but added the following footnote: "These are areas of subject matter now on the fringes of literary property but not intended, solely as such, to come within the scope of the bill: . . . ideas, plans, methods, systems, mathematical principles . . . ."[54]

At a series of hearings held before the Senate Subcommittee on Patents, Trademarks, and Copyrights in 1967, the Electronic Industries Association ("EIA") seized on this language in the House report and urged that the Senate report clarify the scope of copyright protection for ideas:

> A slight discussion on a portion of pages 14 and 15 seemingly indicates that the bill does not protect the area of ideas, plans, methods, systems, and mathematical principles. However, the House report suggests that future Congresses may want to protect these areas. We would like to make sure that the copyright laws do not extend to this area and ask that the Senate report make this clear.[55]

The Subcommittee took the advice of the EIA and adopted language that, with one minor (and irrelevant) modification, was the same as that which ultimately became § 102(b) of the copyright statute. See S. Rep. No. 543, 91st Cong., 1st Sess. (Comm. Print 1969). Section 102(b) in its current form reads:

> In no case does copyright protection for an original work of authorship extend to any idea, plan, procedure, process, system [or] method of operation . . . regardless of the form in which it is . . . embodied in such work.

The new § 102(b) generated considerable opposition during hearings held by the House in 1975. Two computer groups, in particular, argued that copyright protection would be inadequate for computer programs if § 102(b) was enacted unchanged. The Computer & Business Equipment Manufacturers Association ("CBEMA") argued that "the arbitrary aspects of collections and patterns of events and processes that reflect the programmer's unique personality should be copyrightable," and only "[c]ollections and patterns of events and processes that are mandated by the result to be accomplished, that is, are function driven," should not be

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[54] H.R. Rep. No. 2237, 89th Cong., 2d Sess. 43-44 n.1 (1966) (emphasis added). This footnote was repeated in a second House bill introduced a year later. See H.R. Rep. No. 83, 90th Cong., 1st Sess. 14-15 n.1 (1967).

[55] Copyright Law Revision: Hearings Before the Subcomm. on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary, 90th Cong., 1st Sess., Pt. 3, at 970 (1967) (Statement of Graham W. McGowan, General Counsel, Electronics Industry Association).

copyrightable. Copyright Law Revision: Hearings Before the Subcomm. on Courts, Civil Liberties, and the Admin. of Justice of the House Comm. on the Judiciary, 94th Cong., 1st Sess., Pt. 3, at 2218 (1975). To this end, CBEMA proposed excising "plan, procedure, process, system, method of operation" from § 102(b), leaving only "idea, concept, principle, or discovery" as uncopyrightable subject matter.

The Information Industry Association ("IIA") took a slightly different tack to the same effect, proposing that an exception to the proscriptions of § 102(b) be included in its language: "However, copyright protection may exist in a collection of ideas or abstractions arbitrarily selected from a plurality of alternative ideas or abstractions or in a discretionary pattern of events or processes." Id., Pt. 1, at 334-335. The Association argued that the idea/expression dichotomy was limited to situations where alternative processes and sequences were not available, and that the case law did not preclude protection for selection and arrangement of elements. See id., Pt. 1, at 335.

Congress rejected both of these proposed modifications to § 102(b), which would have provided copyright protection for "discretionary choices of processes," choosing instead to adopt § 102(b) in its current form. Congress drew a precise dividing line between works of authorship protected by copyright, and subject matter outside the scope of copyright:

> Copyright . . . pertains to the literary, musical, graphic, or artistic form in which the author expressed intellectual concepts. Section 102(b) makes clear that copyright protection does not extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.

H.R. Rep. No. 1476, 94th Cong., 2d Sess. 56-57 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5670. Congress specifically noted that this dichotomy was to apply to computer programs:

> Some concern has been expressed lest copyright in computer programs should extend protection to the methodology or processes adopted by the programmer, rather than merely to the "writing" expressing his ideas. Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.

Id. at 57, reprinted in 1976 U.S.C.C.A.N. at 5670.

2. **CONTU embraced the Congressional intent to limit rather than broaden copyright protection.**

In 1974, Congress created CONTU to study the reproduction and use of copyrighted works in conjunction with "automated systems" and to make recommendations for appropriate changes to the copyright law. Act of Dec. 31, 1974, Pub. L. 93-513, § 201(b)-(c), 88 Stat 1873, 1873-74 (1974). CONTU began its deliberations in October of 1975, and released its report and recommendations in July of 1978.

In studying the issue of whether computer programs should be brought under copyright, CONTU was also concerned about whether affording copyright protection to computer program code would, in effect, impermissibly protect systems and processes. After much debate of the issue, CONTU finally concluded that computer program code and the processes or systems embodied in the code are generally distinct. CONTU concluded that it could therefore recommend that the code be protected by copyright without running afoul of the proscription of Baker v. Selden that systems, process and the like may not be protected by copyright. See, e.g., Tr. of May 5, 1977 CONTU Meeting at 34-36. CONTU reached this conclusion because it saw in the writing of computer code separable literary works, beyond the functional steps that the program sought to implement. See id.

CONTU stated explicitly in its Final Report that its recommendation to bring computer programs under copyright was not intended to broaden the scope of copyrightable subject matter.[56] CONTU devoted an entire section of the CONTU Report to a careful discussion of the scope of copyright in computer programs, and began that section by noting that the notion "of what rights copyright proprietors have and how those rights are limited does not depend upon the Commission's proposal but is based upon various currently existing copyright doctrines." CONTU Final Report and Recommendations ("CONTU Report") at 18 (emphasis supplied).

CONTU made only two recommendations, both of which were accepted by Congress without

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[56] This point was made repeatedly during the CONTU deliberations. For example, Commissioner Arthur R. Miller stated, "Quite clearly, the [Software] subcommittee was not thinking of extending copyright protection to computer software in any concept in which it would not be extended in instructional modes under general principles." Tr. of Feb. 24, 1977 CONTU Meeting at 31-32.

additional explication in the legislative history. Only one of these changes is relevant here. CONTU proposed, and Congress adopted, the definition of "computer program" set forth in § 101; a "set of statements or instructions" used in a computer "to bring about a certain result." See Paperback, 740 F. Supp. at 50.

From the inception of the Paperback case, the lower court has mistakenly interpreted the Congressional mandate as requiring the protection of all choices attendant to a computer program. This is not the Congressional mandate. Congress did not intend to protect all aspects of a computer program that involved choices; rather, Congress intended to apply existing copyright law to computer programs. The existing law, as set forth in the legislative history, makes it clear that the "selection and arrangement of executable operations" are not to be protected.

As the CBEMA and IIA proposals to Congress demonstrate, the lower court's protection of the "selection and arrangement of executable operations" can be reached only by literally reading the words "procedure, process, system and method of operation" out of the statute. Those proposals were expressly rejected. When, in a comparable situation, the Federal Trade Commission asked the Supreme Court to reinterpret a provision of the Clayton Act in a manner consistent with amendments the FTC had repeatedly sought from Congress but which were never adopted, the Supreme Court responded in the harshest terms:

> The Commission has repeatedly sought similar amendment of the Clayton Act provisions involved in this case. We will not now achieve the same result by reinterpretation in the face of Congress' failure to pass the bills thus brought before it.

Fed. Trade Comm'n v. Ruberoid Co., 343 U.S. 470, 478-79 (1952).[57] This response is equally apposite here.

Congress did not intend to change or distend fundamental copyright principles when it amended the copyright law to cover computer programs; it only intended to apply traditional copyright law to computer programs. Therefore, while the "structure, sequence and organization" of a program's code can be protected under the doctrine of "comprehensive non-literal similarity" to some extent, it cannot be protected to such a

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[57] The Supreme Court has made this point repeatedly. See e.g., United States v. Bergh, 352 U.S. 40, 46-47 (1956); Bowsher v. Merck & Co., 460 U.S. 824, 837 n.12 (1983); United States v. Rutherford, 442 U.S. 544, 544 n.10 (1979) (citing additional authority).

great extent that protection would run afoul of other established copyright doctrines, such as the proscription of 17 U.S.C. § 102(b) against protecting systems, methods of operation, processes or procedures. Copyright does not protect a "sequence" of operations, or the "structure" of a procedure, or the "organization" of a set of concepts.

3. Even protection of program "structure" would not extend to the menu command hierarchy.

While the application of the copyright doctrine of "non-literal similarity" might, at best, protect some aspect of the structure of the 1-2-3 program,[58] what is being protected here is not the "structure" of the program -- it is the set of functions the program performs. There is no allegation in this case that Borland copied or even had access to the "structure" of the Lotus program. Indeed, Lotus did not produce its code in discovery, neither party introduced the code of its program into evidence at trial, and there is every reason to believe that the Lotus program and the Borland program have vastly different structures to perform the same functions.[59] The lower court did not base its "non-literal" element analysis on "structural" similarity; the similarity the lower court held infringing was a similarity of § 102(b) elements: "the selection and arrangement of executable operations."

Perhaps the lower court reached a result that is plainly inconsistent with both the statute and its legislative history because it began its evaluation with a completed computer program. But if the command hierarchy is considered prior to the creation of the protectable program code, it is readily apparent that the command hierarchy's protection is proscribed by § 102(b) because the hierarchy is the "method of operation" that is "expressed" in the actual program instructions ("code"). That was precisely the result in Ashton-Tate Corp. v. Ross, 916 F.2d 516 (9th Cir. 1990), in which the Ninth Circuit held uncopyrightable the menu

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[58] See, e.g., Altai, 982 F.2d at 703 ("We must determine the scope of copyright protection that extends to a computer program's non-literal structure").

[59] See Trial Tr. of Mar. 31, 1993 at 143-145, App. 236. Vastly different code structures can be used to implement the same selection and arrangement of executable operations. M. Kramer Mfg., Co., Inc. v. Andrews, 783 F.2d 421, 436 (4th Cir. 1986); Steven R. Englund, Note, Idea, Process, or Protected Expression? Determining the Scope of Copyright Protection for the Structure of Computer Programs, 88 Mich. L. Rev. 866, 900 (1990).

command hierarchy of a spreadsheet computer program.

In the Ross case, the plaintiff alleged that he had designed and given Ashton-Tate a complete menu hierarchy, including numerous submenus, which Ashton-Tate incorporated into its "Full Impact" spreadsheet product without compensating him:

> Not only are the individual commands identical to those of Full Impact, the order in which they are displayed and the menus in which they are contained are identical to the command set of Full Impact.

Ross Brief In Opposition to Ashton-Tate's Motion for Summary Judgment at 14 (Borland S.J. Brief (Dkt. No. 141) at 84). Unlike the printed 1-2-3 menu tree reproduced supra at 6, Ross' list was handwritten. But like the 1-2-3 menu tree, Ross' tree contained both main menus and submenus. A true and correct copy of the actual menu hierarchy Ross prepared is included in the Addendum to this brief (RE 17) and was included in the lower court record in this case. See Borland II, 799 F. Supp. at 220.

The district court ruled against Ross, finding that he was not entitled to compensation because the spreadsheet menu hierarchy was not entitled to copyright protection. Citing 17 U.S.C. § 102(b), the District Court held that Ross' "list of labels for user commands . . . is not protected under federal law." Ashton-Tate Corp. v. Ross, 728 F. Supp. 597, 602 (N.D. Cal. 1989). On appeal, Ross renewed his argument, the very same argument to justify copyrightability (i.e.. the presence of choices) advanced by the lower court here.[60] Ross argued that his menu command hierarchy evidenced

> numerous decisions by the authors about the ordering of the commands and their arrangement in the user interface. The fact that the authors of these design documents chose the order and groupings displayed, out of a nearly infinite number of possibilities, constitutes creative authorship . . . .

Ex. 21 (Appellant's Opening Brief on Appeal) at 25, App. 1168. The Ninth Circuit confronted this argument directly and rejected it, 916 F.2d at 521-522:

> This argument is meritless for the reasons given in the district court's order, 728 F. Supp. at 602. The list simply does not qualify for copyright protection.

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[60] "The set of executable operations in Lotus 1-2-3 is large and the possible structural variations are enormous." Borland III, 831 F. Supp. at 215.

The lower court in Borland first attempted to distinguish the Ross case, then expressly declined to follow it.[61] The lower court rationalized Ross by asserting that the Ninth Circuit's conclusion of uncopyrightability might have been different had "the defendant contributed other copyrightable elements." Borland II, 799 F. Supp. at 220. The lower court offered no explanation as to why the presence of other copyrightable authorship should make § 102(b) material copyrightable. The facts in this case are virtually identical to those of Ross.

Proscribing copyright protection for the "selection and arrangement of executable operations" as embodied in the menu command hierarchy does not in any sense render copyright ineffective for protecting "creative elements" of computer programs. Compare Paperback, 740 F. Supp. at 56. Copyright protection already provides a powerful and sufficient incentive for the development of new software. Copyright protects against piratical copying of object code. Copyright protects against appropriation of source code, either literally or by paraphrasing. Copyright protects against the unauthorized reproduction of "certain types of screen displays," that are "copyrighted separately as an audiovisual work." Altai, 982 F.2d at 703. Perhaps, in appropriate circumstances, copyright also protects against copying the detailed "structure" of another's program. In short, copyright remains an effective method of intellectual property protection for software companies even if copyright protection is not extended to § 102(b) subject matter.

4. The "arrangement of executable operations" cannot be protected as a "compilation."

In Borland IV, for the first time, the lower court attempted to invoke the copyrightability of compilations as a justification for protecting the menu command hierarchy. The lower court reasoned that the copyright law protects the selection and arrangement of facts as a "compilation" and should therefore protect the "selection and arrangement of executable operations in Lotus 1-2-3." Borland IV, 831 F. Supp. at 231 (emphasis added). This rationale is clearly erroneous. The copyright statute, the legislative history, and the case law all squarely indicate that copyright protection is available for compilations only if the proscriptions

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[61] In declining to follow Ross, the District Court stated: "In the interests of completeness and candor, I note as well that courts in one circuit are not bound by the decisions of other circuits." Borland II, 799 F. Supp. at 220.

of 17 U.S.C. § 102(b) are not implicated.

Section 103(a) of the statute, which deals with compilations, states, "The subject matter of copyright as specified by Section 102 includes compilations and derivative works . . . ." (emphasis added). By its own terms, § 103(a) says that compilations are within the subject matter of copyright only "as specified by Section 102." Because the reference is to all of § 102, the subject matter limitations of § 102(b) also limit compilations. The language of § 102(b) confirms that it limits the copyrightability of all types of subject matter, compilations or otherwise: "In no case does copyright protection for an original work of authorship extend to any . . . system . . . ." 17 U.S.C. § 102(b) (emphasis supplied).

The legislative history of § 102 and § 103 also make clear that Congress intended § 103 to be subordinate to § 102:

> Section 103 complements Section 102: A compilation or derivative work is copyrightable if it represents an "original work of authorship" and falls within one or more of the categories listed in Section 102. Read together, the two sections make plain that the criteria of copyrightable subject matter stated in Section 102 apply with full force to works that are entirely original and to those containing preexisting material [such as compilations].

H.R. Rep. No. 1476, 94th Cong., 2d Sess. 57 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5670 (emphasis added). The case law is to the same effect.[62]

C. The Lower Court Conclusion that Copyright Protects All Words (such as the Menu Command Hierarchy), Letters or "Markers" Incident to a System Contravenes the Most Basic Tenets of Copyright Doctrine.

1. The lower court erroneously restricted § 102(b) to abstractions.

Baker v. Selden is the seminal case in copyright law. See, e.g., Altai, 982 F.2d at 704. Baker v. Selden and its progeny are often cited for the proposition that systems and processes are not copyrightable.

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[62] For example, Digital Communications Assocs., Inc. v. Softklone Distrib. Corp., 659 F. Supp. 449 (N.D. Ga. 1987) makes clear that compilations are subject to the restrictions of Section 102(b). Softklone held that compilations are subject to § 102(b), and the status screen of the program at issue was held copyrightable as a compilation only because the arrangement and stylization of the command terms on the screen in that program "have no relationship to the functioning of the status screen or of the computer program underlying the status screen." Id. at 460, 463. By contrast, the lower court here is attempting to do that which the statute and legislative history say is impermissible -- to make copyrightable the selection and arrangement of § 102(b) material. The lower court is not protecting stylistic elements of the user interface (e.g., color, capitalization, etc.); the lower court is protecting the order of the functions themselves.

See, e.g., Paperback, 740 F. Supp. at 53-54. The Baker line of cases also stands for a number of other fundamental propositions, including the rule that words constituting all or part of a system, process, procedure or method of operation (as opposed to constituting a "description" of the system) are not copyrightable. Words must do more than convey the choices of a system in order to be copyrightable.

The facts of Baker v. Selden, and even the arguments advanced by the parties in that case, are identical to those in this case. The only difference is that the "user interface" of Selden's system was implemented by pen and paper rather than by computer. The rule of Baker v. Selden was embodied in § 102(b) of the copyright statute. See Altai, 982 F.2d at 703.

The lower court's five opinions never really give meaning to § 102(b) or Baker v. Selden. The lower court repeatedly attempted to distinguish the Baker case. See, e.g., Borland I, 788 F. Supp. at 92-93; Borland II, 799 F. Supp. at 214. With respect to § 102(b), the lower court first argued that conventional literary works could be characterized as "systems," then argued that such conventional works are clearly copyrightable, and therefore concluded that § 102(b) could not possibly preclude the copyrightability of non-literal elements of a computer program. Borland IV, 831 F. Supp. at 230-232. The lower court, in fact, restricted the scope of § 102(b) to pure abstractions which have no humanly recognizable manifestation whatsoever, Borland I, 788 F. Supp. at 91:

> [C]opyright protection for computer programs may begin with the point that a person who conceives a "process" shows or tells -- uses some form of communication -- to make the process accessible to another.

According to the lower court, then, all words that are attendant to a computer program (or, for that matter, any other system) are copyrightable. If the lower court's ruling were applied nationwide, it would put out of business a large portion of the American computer and software industry -- those companies lawfully engaged in the making of compatible products (as the Altai case describes), such as IBM-compatible computers.

2. **The lower court's limitation of § 102(b) contravenes more than 100 years of case law.**

This important holding by the lower court squarely contradicts the Baker ruling. In Baker, the plaintiff, Charles Selden, obtained a copyright on a pamphlet that explained a systematic approach to

bookkeeping. The pamphlet contained a complex series of ledgers or forms, like the various screen displays in the 1-2-3 user interface. The Selden forms each contained grids, columns, and various alternative short textual descriptive "headings" or "captions" (generally a single word) like the 1-2-3 menu commands.

The defendant, Baker, published forms similar in headings and arrangement to those of Selden. Selden sued Baker for copyright infringement because of this similarity, arguing -- as Lotus argues here -- that there was "original expression" in the selection, ordering and arrangement of the headings and columns of the ledgers each contained in his copyrighted pamphlet. See Baker v. Selden, 101 U.S. at 101.

Manifestly, since the words on Baker's forms were different from those on Selden's, the Supreme Court could have found for Baker solely on the ground that the textual labels were not substantially similar. But the Supreme Court did not take that route. Stating that the principal issue in the case was whether Baker could use "similar ruled lines and headings, or ruled lines and headings made and arranged on substantially the same system, without violating [Selden's] copyright," id. at 101, the Supreme Court held that Selden's ledgers, including their column arrangement and textual headings, were not copyrightable at all -- and could be copied verbatim. Id. at 107.

Throughout the case Borland has argued that the Kapor affidavit, submitted by Lotus, describes elements of the 1-2-3 user interface in terms synonymous with the famous dichotomy of Baker v. Selden, the "object" of copyrightable subject matter being "explanation," while the "object" of patentable subject matter is "use." Baker v. Selden, 101 U.S. at 105. According to the Kapor affidavit, the "object" of the long prompts is to provide "information to the user" and "explanations," while the object of the menus is to "map out a plan for performing a particular task." Kapor Aff. at ¶¶ 44, 101, App. 541, 553.

Baker v. Selden is "fundamentally a case about the unprotectability of the functional content of written words, and the right of others to copy that [functional] content."[63] As the Altai court observed, 982 F.2d at 704, the holding of Baker that systems, processes and the like are not copyrightable, is not restricted to pure

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[63] Pamela Samuelson, Computer Programs, User Interfaces, and Section 102(b) of the Copyright Act of 1976: A Critique of Lotus v. Paperback, 6 High Tech. L.J. 209, 228 (1991).

abstractions:

> [T]he holding in Baker goes farther. The [Supreme] Court concluded that those aspects of a work, which "must necessarily be used as incident to" the idea, system or process that the work describes, are also not copyrightable. 101 U.S. at 104.

The Altai court went on to explain that, based on this reasoning, the Supreme Court in Baker concluded that Selden's ledger sheets, including their textual headings, "enjoyed no copyright protection because they were 'necessary incidents to' the system of accounting that he described." Id. at 705 (quoting Baker v. Selden, 101 U.S. at 102, 103).

By holding Selden's textual headings uncopyrightable, the Supreme Court established the rationale for the narrowly circumscribed scope of copyright protection, which, if properly understood, would have avoided the lower court's analysis of "choices" for menu commands. So strong is society's interest in ensuring that systems, processes, procedures and methods of operation are free to be copied and used (absent patent protection) that Baker v. Selden holds even words "incident" to the system (like textual headings or command names) uncopyrightable.

The Altai court's emphasis on the uncopyrightability of words "incident" to a system from Baker v. Selden breaks no new ground.[64] Baker's progeny have repeatedly held that systems embodied in words are no more protectable than systems embodied in any other medium. For example, the Seventh Circuit explained many years ago that copyright protection does not preclude the public from using the inventor's system. Normally, use of the system is "effected by means other than the embodiment of words."[65] But, as the Baker court expressly held, the principle of unprotectability for systems is all the same whether the system is embodied in words or in some other medium. Baker v. Selden, 101 U.S. at 105. If the system "can be effected solely by the employment of words descriptive thereof," those words are not copyrightable.[66] The

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[64] See, e.g., Goldstein Treatise, § 2.3.1 at 77 (1989); 1 Nimmer on Copyright, § 2.18[B] at 2-198 to 2-199; Copyright Law Professors Brief (Dkt. No. 102) at 7.

[65] Crume v. Pacific Mut. Life Ins. Co., 140 F.2d 182, 184 (7th Cir.), cert. denied, 322 U.S. 755 (1944).

[66] Crume, 140 F.2d at 184-85. Most assuredly, when Kapor's system is imbedded in macros by users, the system cannot be "effected" except by those words -- synonyms simply will not work.

Seventh Circuit labeled as "preposterous" the notion that words comprising a system could be protected by copyright, because protecting such words grants a monopoly that is beyond the scope of the copyright laws.[67]

In short, the law is directly contrary to what the District Court has held. Copyright protection does not begin at the point that a person attaches words, letters, or "markers"[68] to a process in order to make it "accessible to another."[69] Rather, words that "effect" or "are incident to" a process, procedure or method of operation are uncopyrightable. In this respect, the test for copyrightability of functional words "incident to a system" is no different from the test of copyrightability for any other aspect of a functional work.

3. Protectable features of useful articles must be separately identifiable and aesthetic.

The lower court repeatedly noted that Congress and the case law impose a far more rigid standard on copyright protection for useful articles than for artistic works. See Paperback, 740 F. Supp. at 52; Borland II, 799 F. Supp. at 210.[70] Indeed, the lower court correctly concluded that this strict standard should be applied in the copyrightability analysis of the user interfaces generally, and the menu command hierarchy specifically, because they are "useful articles." See Paperback, 740 F. Supp. at 54-58; Borland II, 799 F. Supp. at 210. Therefore, as useful articles under both the statute and the case law, these "non-literal aspects" of a computer program are "potentially copyrightable" only if they "can be identified separately from, and are, capable of existing independently of, the utilitarian aspects of the article."[71]

Under the useful article test, the menu command hierarchy would clearly be uncopyrightable subject

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67 Crume, 140 F.2d at 184. Many other cases are to the same effect. See, e.g., Arica Inst., Inc. v. Palmer, 970 F.2d 1067, 1074-1075 (2d Cir. 1992); Long v. Jordan, 29 F. Supp. 287, 289 (N.D. Cal. 1939).

68 The lower court found infringement because Borland used "'markers' of the Lotus menu tree structure." Borland IV, 831 F. Supp. at 233.

69 This is the test set forth by the lower court. See Borland I, 788 F. Supp. at 91.

70 This was certainly the intent of CONTU. For example, during the CONTU deliberations, Commissioner Miller explained that the CONTU Software Subcommittee recognized that computer programs are different from artistic works, and that the classification of computer programs as literary works does not necessarily result in protection of computer programs to the same extent that artistic literary works are protected. See, e.g., Tr. of Feb. 24, 1977 CONTU Meeting at 49-54.

71 Paperback, 740 F. Supp. at 54, citing 17 U.S.C. § 101; see also Borland II, 799 F. Supp. at 210, citing Brandir Int'l, Inc. v. Cascade Pac. Lumber Co., 834 F.2d 1142 (2d Cir. 1987).

matter. Substituting the word "system" for the word "idea" in the lower court's statement regarding the copyrightability of useful articles, the test would read

> If a particular expression of the [system] . . . communicates no details beyond those essential to stating the [system] itself, then that expression would not be copyrightable.

Paperback, 740 F. Supp. at 65. The menu commands and their order communicate no "details" beyond those essential to "stating the system itself" and, hence, are uncopyrightable. In contrast, the long prompts, the "online help" text and printed documentation actually explain and describe the system. Likewise, many computer-generated screen displays, such as videogames or Apple's famous Macintosh screen display,[72] qualify for copyright protection. These screen displays include a level of artistic endeavor (e.g., fanciful or graphical images and zooming animation) that stands apart from and exists independently of the functional steps the user performs when invoking the system: cut, copy, recalc, clear, etc.

Faced with the fact that the test for functional works renders the hierarchy uncopyrightable, the lower court retreated to what the legislative history (quoting Chief Judge Breyer) refers to as the "fallacy of analogy."[73] The lower court refused to apply the more rigid standard for copyrightability of useful articles, retreating instead to the analogy of novels -- i.e., artistic literary works -- attempting to invoke the broader scope of copyright protection that such works enjoy. See Borland II, 799 F. Supp. at 214; Borland IV, 831 F. Supp. at 231, 234. The lower court's analogy is inappropriate: "Trade books are not like textbooks, textbooks are not like computer programs."[74] As the Altai court observed, tests "developed historically in the context of artistic and literary, rather than utilitarian, works" are "inadequate" in the context of computer

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[72] A print of the Macintosh screen display presented in the lower court proceedings is found at RE 18. See Memo. of Law in Support of Borland's Motion to Compel (Dkt. No. 45) ("Motion to Compel") at 18.

[73] The legislative history of the Semiconductor Chip Protection Act explains this fallacy: "Stated somewhat differently, a mask work is not a book. The proposed legislation does not engage in the legal 'fiction' of treating books and mask works similarly. It does not suffer from the 'fallacy of analogy' referred to by Judge Stephen Breyer in his remarks to the recent Congressional Copyright and Technology Symposium." H.R. Rep. No. 781, 98th Cong., 2d Sess. 6-7 (1984) (accompanying H.R. 5525).

[74] Proceedings of the Congressional Copyright and Technology Symposium, 99th Cong., 1st Sess. 100-101 (1985) (statement of Stephen Breyer, J.).

programs. Altai, 982 F.2d at 713 (quoting Altai, 775 F. Supp. 552, 558 (E.D.N.Y 1991)).[75]

Hence, as either a functional work ("useful article") or as functional words "incident to" a system, the menu command hierarchy must have aspects that go beyond merely constituting the system itself in order to be protected by copyright. This most fundamental tenet of copyright law is based on the underlying notion that, absent patent protection, inventors should be able to employ freely (and copy for the benefit of society) processes, procedures and methods created by others. Stated somewhat differently, inventors should not be able to monopolize processes, procedures and methods without satisfying the exacting standards of the patent law. The lower court's decisions vastly expand the scope of copyright protection granting monopolies far beyond those contemplated by Congress.

4. The patent law is designed to protect the "arrangement of executable operations."

Copyright protection "is part of a larger intellectual property system Congress has created to provide intellectual property protection to certain kinds of creative works to provide incentives to invest in their creation or dissemination." Copyright Law Professors Brief (Dkt. No. 102) at 1. The copyright statute is not an all-purpose, general misappropriation law. Rather, the patent law portion of the overall intellectual property system protects "any new and useful process." 35 U.S.C. § 101.

There is an obvious equivalent between the types of matter protectable by the patent laws and the types of matter excluded from copyright protection under § 102(b) of the Copyright Act. The patent law expressly covers "processes," 35 U.S.C. § 101, while the copyright statute expressly proscribes protection for "processes." 17 U.S.C. § 102(b). The patent law's protection of processes meeting the standard for patentable subject matter indicates the appropriate demarcation between copyright and patent law in terms of the protection of different elements of computer programs.

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[75] As Prof. Arthur Miller, a member of CONTU, stated: "The end purpose of a computer program is to achieve a utilitarian result, i.e., the computer's performance of logical operations in a way that produces the desired practical consequence. One cannot compare, therefore, the underlying processes of a computer program with, say, the underlying plot structure of a novel or a screenplay of a movie. This, of course, is the distinction recognized by the Supreme Court long ago in the seminal decision of Baker v. Selden, 101 U.S. 99 (1879)," reprinted in Kenneth A. Liebman, et al., Back to Basics: A Critique of the Emerging Judicial Analysis of the Outer Limits of Computer Program "Expression", 2 Computer Law., Dec. 1985, at 1, 8.

"Process" has been clearly and repeatedly defined by the Supreme Court, beginning in 1877 when the Court provided the classic judicial definition of "process":

> It is an act, or a series of acts, performed upon the subject matter to be transformed [in this case, numbers] and reduced to a different state . . . [A] process requires that certain things should be done . . . and [done] in a certain order.

Cochrane v. Deener, 94 U.S. 780, 787 (1877). The Cochrane language ("certain things should be done in a certain order") is precisely the language the Supreme Court adopted in its more recent decisions confirming the patentability of "processes" in computer programs, emphasizing that "transformation and reduction of an article 'to a different state or thing' is the clue to patentability of a process claim." Diamond v. Diehr, 450 U.S. 175, 184 (1981) (quoting Gottschalk v. Benson, 409 U.S. 63, 70 (1972)).

The Supreme Court's definition of "process" (including the definition of "process" in computer programs), that "certain things should be done in a certain order," is identical to what the lower court calls the "selection and arrangement of executable operations." To use the lower court's example, to transform numbers into a "different state" -- the "state" of "currency notation" -- the first act is to invoke a "RANGE" of the spreadsheet, the second act is to consider the "FORMAT" of the data, and the third act is to put that data into "CURRENCY" format. If the user employs a keyboard, he strikes "/RFC." See Borland II, 799 F. Supp. at 207-208. If the user employs voice recognition software, he speaks the words.

The lower court has enjoined Borland from employing a system and process for transforming numbers on a spreadsheet. This is best explained in Borland's Response Video (Dkt. No. 131). Although Borland's explanation and description of the system are different (i.e., different documentation, help screens, etc.), the lower court has enjoined Borland from giving users the ability to execute the same functions in the same order as that of 1-2-3. The lower court has provided Lotus with all the benefits of patent protection for its "process" without requiring Lotus to satisfy any of the exacting requirements of the patent law.

Copyright is broad, long-lasting, easily obtainable protection. Copyright registration is obtained for copyrightable elements of a computer program merely by making a deposit of any copyrightable subject matter (such as code). See Ex. 22 (Copyright Office Circular 61) at 2, App. 1170. There is no examination procedure.

The copyright lasts for approximately 75 years. Because copyright protection is so easy to obtain, and lasts so long, it was neither intended for, nor is it suited for, the granting of government-sanctioned monopolies for processes or methods of operation. See, e.g. Goldstein Treatise, § 2.3.1 at 78, § 2.15.2 at 207 (1989); Paul Goldstein, Infringement of Copyright in Computer Programs, 47 U. Pitt. L. Rev. 1119, 1123-1124 (1986). The monopoly on a "method of operation" has far greater ramifications than the monopoly on a book, poem or painting. Precluding a competitor's product from offering another's process or method of operation means that users will lose their investment in the skill set necessary to implement that method of operation if they switch to a competitor's product.

Such a broad government-sanctioned monopoly must be secured, if at all, through the patent system. Patents on "processes" are difficult to obtain and last a relatively short period of time (17 years). Patent applications must state the invention, describe the prior art, and set forth the claims for protection clearly and specifically. There is a complex examination process to ensure that the patentor will be contributing something new to the state of the art (i.e., something novel and non-obvious, an advancement over the prior art, etc.), as the quid pro quo for the grant of monopoly. See 35 U.S.C. §§ 103, 131; 37 C.F.R. §§ 1.101-1.146; Graham v. John Deere Co., 383 U.S. 1, 6 (1966). None of these safeguards are present in the copyright system established by Congress because it was (and is) not contemplated that the scope of copyright protection is tantamount to that of patent. Unless § 102(b) is recognized for what Congress intended it to be, the copyright law would afford over-extensive protection to works by applying only the most minimum level of scrutiny. The lower court's decisions misconstrue the overall intellectual property framework established by Congress and undermine its rationale.

D. The Lower Court Improperly Rejected Compatibility as a Justification for Similarity.

The intellectual property system established by Congress embodies "a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy." Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 146 (1989). Over many decades, Congress and the courts have established a

number of well-known doctrines that intentionally limit the scope of copyright protection in order to promote competition for the benefit of the public. As the Supreme Court has repeatedly instructed, "'[t]he limited scope of the copyright holder's statutory monopoly . . . reflects a balance of competing claims upon the public interest.'" Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 431 (1984) (quoting Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975)).

The analysis adopted by the Second, Fifth, Ninth, and Tenth Circuits recognizes a number of factors, well established in copyright doctrine, that preclude copyright protection for aspects of computer programs.[76] Thus, aspects dictated by efficiency, taken from the public domain, or required by computer specifications, design standards, industry demands, accepted programming practices or compatibility requirements of other programs are not copyrightable.[77]

The extent to which "compatibility requirements of other programs" limit the scope of copyright protection is of fundamental importance to the disposition of this case and to the industry more generally. From the initial publication of 1-2-3, the program's documentation instructed users and other third parties to employ the words in the menu command hierarchy to create "macros." A user or third party who creates a macro is writing a computer program that produces a given result. That program runs (or "executes," in computer parlance) on a spreadsheet program, in much the same manner as any application program runs on an operating system.

When a macro is written using the words and order of the 1-2-3 menus, those words and their order become part of the interface specification for the execution of that program. The words and their order are no different from other alphanumeric elements of a software interface specification, such as the "services list" in Altai. See Altai, 982 F.2d at 715. In other words, the macro program will not execute unless the spreadsheet on which it is running uses and recognizes the menu words and order of the 1-2-3 spreadsheet.

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[76] Altai, 982 F.2d at 707-710; Plains Cotton Coop. Ass'n v. Goodpasture Computer Serv., Inc., 807 F.2d 1256, 1262 (5th Cir. 1987); Sega, 977 F.2d at 1524; Gates Rubber, 1993 U.S. App. LEXIS 27045 at *17, 23-34.

[77] Altai, 982 F.2d at 710; Sega, 977 F.2d at 1524; Gates Rubber, 28 USPQ 2d at 1512.

Synonyms for the words of the 1-2-3 menus or a different order of those words will not permit the macro program to operate.

Furthermore, the creation and use of macro programs frequently requires that the 1-2-3 menus be visibly displayed to the user. The user cannot write a macro to run on 1-2-3 or a spreadsheet without compatible menus, nor can he or she correct ("debug") a macro program previously written using 1-2-3 menus, without visual access to the exact words and order of the 1-2-3 menus. In addition, many macros require command input from the user during their execution, and this input must conform to the user interface specification – i.e., the user's input must employ the words and their order from the 1-2-3 menus.

Drawing upon the scenes a faire doctrine, Altai holds that element of a computer program "dictated by external factors," 982 F.2d at 709, such as "compatibility requirements of other programs with which a program is designed to operate in conjunction," id. at 710 (citing 3 Nimmer on Copyright at 13-66 to 13-71), cannot be protected under copyright law. But the lower court steadfastly refused to accept this doctrine and repeatedly rejected the need for compatibility as a basis for employing elements of another's computer program:

> Moreover, in explaining my earlier decisions, I have twice observed that copying of expressive aspects of Lotus 1-2-3 may not be permissible under copyright law, even if that is the only way to achieve macro compatibility.

Borland IV, 831 F. Supp. at 233. This holding is squarely at odds with Altai doctrine which has become the law of the Second, Ninth and Tenth Circuits.

Faced with Altai's broad acceptance, the lower court did not even attempt to limit the scope of its position that compatibility is not a justification for employing elements of another's program; rather, the lower court attempted to distinguish Altai. The lower court limited the Altai holding to stand only for the proposition that "a program designed to interact with pre-existing software, such as the operating system at issue in Computer Associates, is not entitled to protection to the extent that it is constrained by the need for compatibility with the pre-existing software." Borland II, 799 F. Supp. at 213 (emphasis supplied). In other words, the lower court limited Altai's compatibility holding to a situation in which elements of the infringed work are required to be compatible with software that predated that work. Elements of a program necessary

to operate with programs that came into being after the infringed work are protected by copyright, in the lower court's view.

The lower court's limitation of Altai would generally permit the creation of new applications to run on existing operating systems. However, it would not permit the creation of new operating system software to run an existing body of application programs written by third parties for a competitor's pre-existing operating system because the aspects of the pre-existing operating system software needed for later compatibility were not constrained at the time of initial creation. If adopted nationwide, the limitation set forth in the lower court decisions would severely curtail competition with respect to the creation of compatible computer products.

The lower court does not explain the rationale for its limitation. Such a demarcation is not set forth in Altai, nor is it consistent with the facts of Altai. In Altai, the similarity in "non-literal elements" resulted from the need to interface with (1) the operating system on which the respective compatibility components were designed to run and (2) the application components of the batch scheduling programs. Altai, 775 F. Supp. at 561, 562; 982 F.2d at 715. While the operating system program (published by a third party, IBM) apparently predated publication of the plaintiff's compatibility component, the second set of externally constraining programs, the applications, did not. The District Court in Altai emphasized that the plaintiff's product was first published in 1979 as part of another program and was subsequently modified for applications that were published in 1981. Altai, 775 F. Supp. at 552. In short, there is no factual basis in Altai for the limitation drawn by the lower court in this case.

Nor can the lower court's limitation of Altai be reconciled with the theory of scenes a faire on which Altai's analysis is based. In general literary contexts, scenes a faire need not derive from pre-existing historical or cultural contexts. See, e.g., See v. Durang, 711 F.2d 141, 143 (9th Cir. 1983); Evans v. Wallace Berrie & Co., Inc., 681 F. Supp. 813, 817 (S.D. Fla. 1988). There is, therefore, no basis in general copyright doctrine to limit compatibility, on which scenes a faire is based, to factors that preceded the development of the infringed product.

Most importantly, the demarcation established by the lower court stands in stark contrast to the fundamental principle set forth in Altai that copyright was not intended to let "first comers" "lock up" basic technology and markets. Copyright protection was not intended to provide Lotus with a substantial marketing advantage -- sheltering the installed base of 1-2-3 users against effective competition -- merely because Lotus was the first spreadsheet company to effectively exploit the capabilities of the IBM PC.

E. The Lower Court's "Incentive Based Arguments" Distort the Balance Struck by Congress.

Copyright represents a "difficult balance" struck by Congress between the "interests of authors" on one hand, and "society's competing interest in the free flow of ideas, information, and commerce on the other hand. . . ." Sony, 464 U.S. at 429. In developing and applying its test for copyrightability, the lower court skewed that balance, applying what the Second Circuit referred to as "incentive based arguments," to weigh the interest of authors too heavily. Altai, 982 F.2d at 712. By redrawing the balance, the lower court improperly usurped the role of Congress and ended up protecting that which the copyright statute expressly says is uncopyrightable.[78]

The lower court responded to the Second Circuit's criticism by asserting that "acceptance or rejection of [the incentive based arguments] is not likely to affect the outcome in this case." Borland II, 799 F. Supp. at 212. In fact, however, the lower court's "incentive based arguments" infected every aspect of its analysis, invariably producing flawed standards that favor the interest of authors and that have, in the words of the Second Circuit, a "corrosive effect on certain fundamental tenets of copyright doctrine." Altai, 982 F.2d at 712. For example:

- Words "incident" to a system are not protectable under Baker v. Selden. The lower court draws the balance the other way: protection begins at the moment words are attached to an abstract idea.

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[78] Rather than deferring to Congress and treating § 102(b) as a safe harbor, the lower court, in effect, applied a § 107 fair use analysis to § 102(b) subject matter. The lower court weighed and balanced what it perceived to be competing interests in determining copyrightability for the selection and arrangement of executable operations. See Paperback, 740 F. Supp. at 53. Indeed, the very factors the lower court analyzes to determine the "scope" of infringement, "(1) the scope of copying, and (2) the nature of the copied work" are statutory § 107 fair use factors, not §102(b) subject matter factors. Compare Borland III, 831 F. Supp. at 209, with 17 U.S.C. § 107(2),(3).

- The statute and case law hold that the only copyrightable elements of a useful article are those that are separately identifiable from the utilitarian aspects of the article and are aesthetic or artistic. But the lower court has it the other way, holding that a work must be "dictated solely by functional concerns" before it loses copyright protection.

- The case law holds that a small copyrightable feature taken by a copyright defendant must be "qualitatively substantial" to the original work before infringement occurs. But in the lower court's test, the appropriated features must only be "more than trivial."

- The case law holds that, if expressive and utilitarian elements of a work are inseparable, the elements are unprotectable. The lower court, on the other hand, holds that the hierarchy has both expressive and functional aspects, but the functional aspects cannot be used if copying the expressive aspects are required to do so.

The Supreme Court has made it clear that only Congress may redraw the balance between private monopoly and public access. The courts are required to defer to Congress "when major technological innovations alter the market for copyrighted materials." Sony, 464 U.S. 417, 431 (1984). If Congress has not expressly chosen to expand the scope of copyright protection, it is not the job of the courts to do so. On the contrary, "[i]n a case like this, in which Congress has not plainly marked our course, we must be circumspect in construing the scope of rights created by a legislative enactment which never contemplated such a calculus of interests." Id.[79] The lower court plainly thought that it was empowered to "draw the line between copyrightable and non-copyrightable elements of computer programs." Paperback, 740 F. Supp. at 53. In so doing, the lower court usurped the role of Congress.

II. BORLAND'S USE OF THE 1-2-3 HIERARCHY WAS A FAIR USE.

Borland raised the fair use defense in response to both Lotus' initial complaint against the 123-compatible interfaces of Quattro and Quattro Pro and to Lotus' amended complaint alleging infringement by Borland's Key Reader. The lower court considered Borland's defenses separately, rejecting Borland's defense to the original complaint from the bench, Trial Tr. of March 31, 1993 at 50-58 (in Addendum), and then rejecting Borland's defenses with respect to the Key Reader in Borland IV. Borland IV, 831 F. Supp. at

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[79] Congress has had absolutely no difficulty in creating new forms of intellectual property protection for aspects of computer technology that required protection, in the view of Congress, but were beyond the traditional bounds of copyright. See Semiconductor Chip Protection Act, 17 U.S.C. §§ 901-914 (1984).

240-245. On this appeal, Borland contends that the lower court's fair use analysis was flawed by failings to properly consider the statutory factors, and by ignoring the balance mandated by a proper fair use analysis. Because fair use is a mixed question of law and fact, where, as here, the district court has found facts sufficient to evaluate the fair use factors, this Court may review the fair use question as a matter of law. Harper & Row Publishers, Inc. v. Nation Enter., 471 U.S. 539, 560 (1985).

Fair use is an "equitable rule of reason," employed to hold an unauthorized use of a copyrighted work "non-infringing," if the court believes that such use would further the overall purpose of the copyright law and otherwise benefit society. Sony, 464 U.S. at 448. Although 17 U.S.C. § 107 lists four factors that the Court must consider in evaluating the fair use defense, those four factors are merely illustrative; "they are intended to guide but not limit analysis." Lewis Galoob Toys v. Nintendo of America, 780 F. Supp. 1283, 1292 (N.D. Cal. 1991), aff'd, 964 F.2d 965 (9th Cir. 1992).

Because virtually every act of copying has a commercial aspect, the fact that defendant's use may have some commercial purpose is not dispositive of the first fair use factor -- the court must still explore the precise nature of the use. Sega, 977 F.2d at 1522. "The commercial nature of a use is a matter of degree, not an absolute . . . ." Id. But, the lower court twice suggested that the commercial aspect of Borland's use of the 1-2-3 menu command hierarchy was dispositive of this aspect of the fair use analysis. Trial Tr. of March 31, 1992 at 53 (in Addendum); Borland IV, 831 F. Supp. at 241-242. This holding is erroneous and, if allowed to stand, would entirely eliminate application of the fair use doctrine for all functional works such as computer programs (which are, by definition, intended for commercial exploitation). Borland provides a mechanism for the consumer to use the investment in training and the macro programs that he or she has written and owns. See Paperback Trial Tr. XII:71, App. 2; Galoob, 964 F.2d at 965. Because Borland performed its own creative work, and only used the plaintiff's menu command hierarchy to supplement rather than substitute for that work, a finding of fair use is appropriate, notwithstanding the commercial nature of the use. See, e.g., Sega, 977 F.2d at 1522, 1524.

The second fair use factor relates to "the nature of the copyrighted work." 17 U.S.C. § 107(2). Of

the four statutory factors, this second factor is considered to be the most important in the analysis of utilitarian works, because it "reflects the fact that not all copyrighted works are entitled to the same level of protection." Sega, 977 F.2d at 1522, 1524. "[T]o the extent that a work is functional or factual," its copyright protection is weak, and fair use is easily found. Id. (citing Baker v. Selden, 101 U.S. 99, 102-104 (1879)).

The lower court all but ignores the admonition of Sega that computer programs are functional and should not be considered as an artistic or factual literary work. The lower court concludes that the 1-2-3 menu command hierarchy is "similar to a 'factual work,' and that copying from the substantial expression found in the menu tree is not remotely necessary for disseminating the underlying executable operations (or 'facts')." Borland IV, 831 F. Supp. at 243. But the 1-2-3 menu command hierarchy is the sole means by which a user can operate the spreadsheet program, and thus is purely utilitarian in nature -- it is the "method of operation." Accordingly, this second statutory factor in the §107 fair use analysis -- the most important factor -- weighs heavily in Borland's favor.

The third factor to consider in a fair use analysis is "the amount and substantiality of the portion used in relation to the copyrighted work as a whole." 17 U.S.C. § 107(3). In Borland II, the lower court found that Lotus could make a valid claim against Borland only with respect to the copying of the menu commands and their order and correctly deemed this amount of copying as merely "more than trivial," when compared to the work as a whole. 799 F. Supp. at 219. In subsequently ruling on the third fair use factor, the lower court changed the work at issue, analyzing the 1-2-3 menu tree as the work Borland copied, Borland IV, 831 F. Supp. at 243, rather than as a "more than trivial portion" of the 1-2-3 work as a whole. In any event, in Sega fair use was found despite the fact that the defendant copied all of plaintiff's code. 977 F.2d at 1526-27. By contrast, Borland used none of Lotus code, and even the lower court admitted that the user interfaces as a whole looked different. Borland II, 799 F. Supp. at 220.

Finally, § 107 suggests that the Court consider the effect of the use of the copyrighted work upon the potential market for that work. 17 U.S.C. § 107(4). "A fair use will frequently suppress demand for a work, but as long as it does so without supplanting demand," the fourth factor will weigh in the defendant's favor.

Galoob, 780 F. Supp. at 1294; see also Sega, 977 F.2d at 1524.

The evidence submitted by the parties conclusively shows that Borland's actions had little effect on the potential market for 1-2-3. From the beginning of until August of 1992, at the time that Borland removed the 123-compatible mode from its products, Lotus consistently maintained a 70% marketshare. See supra at 20-21. At trial, Lotus submitted nothing to contradict its prior admissions regarding Borland's lack of effect on its potential market. The lower court's conclusion that Borland's copying is harmful to Lotus' potential market is speculative and cannot support the lower court's conclusion that this statutory factor weighs in Lotus' favor.

Borland's use of the 123-compatible menus within Borland's own unique, independently-developed interface in order to provide macro compatibility with 1-2-3 is precisely the type of use that allows developers to improve upon software while maintaining compatibility with older programs, thereby enabling users to retain the value of their previous work. In contrast, by attempting to prohibit others from using the 1-2-3 menu command hierarchy, Lotus seeks to force users to abandon their skills and macros if they choose to switch to a different program -- even if the new program is original in all respects except for the incidental use of the 1-2-3 menu commands. This use of the copyright laws -- to maintain a monopolistic share of the market -- is precisely the situation in which the fair use defense should be applied, Sega, 977 F.2d at 1523-1524:

> An attempt to monopolize the market by making it impossible for others to compete runs counter to the statutory purpose of promoting creative expression and cannot constitute a strong equitable basis for resisting the invocation of the fair use doctrine.

III. LOTUS' CLAIMS ARE BARRED BY THE DOCTRINES OF LACHES, ESTOPPEL AND WAIVER.

As with the substantive issue of copyrightability, the lower court found against Borland on virtually every contested factual issue concerning the affirmative defenses. Many of these factual conclusions are mere speculation, unsupported in the record, and are clearly erroneous. More importantly, even under the facts found by the lower court, Lotus claims are barred by the doctrines of laches, waiver and estoppel as a matter of law.

A. Lotus' Claims against the 123-Compatible Interface are Barred by the Doctrines of Laches and Waiver.

There is no dispute about the law to be applied with respect to Borland's affirmative defenses – the parties and the lower court agree that a defense of laches requires that the defendant show that (1) plaintiff inexcusably or unreasonably delayed in bringing an infringement action, and (2) defendant was prejudiced by this delay. Puerto Rican-American Ins. Co v. Benjamin Shipping Co., Ltd., 829 F.2d 281, 283 (1st Cir. 1987). Nor is there any dispute about the relevant facts – it is conceded by Lotus top executives that they waited literally years, until "the commercial threat posed by Quattro was sufficiently genuine," before giving Borland any notice whatsoever. Lemberg Decl. at ¶ 5, App. 623.

In rejecting Borland's laches defense, the lower court erroneously held that (1) as a matter of law, Lotus had no obligation to provide Borland with notice of its objections, and (2) in any event, Lotus' prior actions during the course of Paperback provided sufficient notice to Borland. These rulings by the lower court rest on an erroneous interpretation of the law and on a clearly erroneous factual underpinning, and should be reversed. See American Title Ins. Co. v. East West Financial Corp., 959 F.2d 345, 346 (1st Cir. 1992); LeBlanc v. B.G.T. Corp., 992 F.2d 394, 396 (1st Cir. 1993).

1. Lotus was required to provide Borland with notice of its objections but did not.

The lower court rejected as "meritless" Borland's contention that Lotus was required to provide Borland with notice of its objections. Borland II, 799 F. Supp. at 223. This position is directly contrary to that of Judge Learned Hand in Haas v. Leo Feist, 234 F. 105, 108 (D.N.Y. 1916):

> It must be obvious to every one familiar with equitable principles that it is inequitable for the owner of a copyright, with full notice of an intended infringement, to stand inactive while the proposed infringer spends large sums of money in its exploitation, and to intervene only when his speculation has proved a success. Delay under such circumstances allows the owner to speculate without risk with the other's money; he cannot possibly lose, and he may win.

Judge Hand's axiom that a copyright owner may not lie in the weeds before asserting his rights has been adopted in copyright cases involving laches and estoppel throughout the country:

> [T]he rule that a copyright owner may not deliberately delay his prosecution until the infringer's exploitation has been successful . . . is recognized in virtually all jurisdictions.

Eisenman Chem. Co. v. NL Indus., Inc., 595 F. Supp. 141, 147 (D. Nev. 1984).[80]

The lower court held that Lotus' delay in asserting its claims was excusable.[81] In support of its decision, the lower court noted that Lotus was engaged in a "hotly contested" litigation with Paperback. Borland III, 831 F. Supp. at 219. The lower court reasoned that "If Lotus had lost the Paperback case, Lotus's claims against Borland would have been difficult to maintain." Id. Hence, avoiding "expensive duplicative litigation" was a justifiable reason for delay. Id. This reasoning would be apposite if the obligation on Lotus were an obligation to file suit. But that is not the obligation, fulfillment of which will avoid laches. Rather, Lotus had the obligation to give notice of its true intentions. Lotus need not have filed suit, but it should have given notice to Borland so that Borland could have changed its product, negotiated a resolution, or filed a declaratory judgment action itself.

2. **The Paperback action could not have provided any notice to Borland.**

The lower court also relied on the pendency of the Paperback action as evidence of notice to Borland, asserting that Borland knew Lotus was acting in Paperback to protect its copyright "for the form of its menu tree." Borland III, 831 F. Supp. at 220.

But the lower court expressly found in its earlier Borland opinions that Paperback dealt with issues different from those presented in the present case, and could not possibly have provided notice to Borland of

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[80] See also Universal Pictures Co. v. Harold Lloyd Corp., 162 F.2d 354, 372 (9th Cir. 1947); Christie v. Raddock, 169 F. Supp. 48, 51 (S.D.N.Y. 1959). The lower court attempted to distinguish Haas by suggesting that Borland was a "deliberate infringer," and therefore not entitled to raise any equitable defenses. Borland III, 831 F. Supp. at 220. The characterization of Borland as a "deliberate infringer" is clearly erroneous, and is unsupported by anything in the record. The lower court apparently failed to distinguish between the deliberate introduction of a product that was later determined to be an infringement and the deliberate introduction of a product known to be infringing. The latter is "deliberate infringement"; the former is not. See, e.g., Video Views, Inc. v. Studio 21, Ltd., 925 F.2d 1010, 1020-21 (7th Cir. 1991); Branch v. Ogilvy & Mather, Inc., 772 F.Supp. 1359, 1365 (S.D.N.Y. 1991) (having obtained advice of counsel that there was no infringement, as Borland did here, defendants held not to be willful infringers).

[81] The lower court cited Boothroyd Dewhurst, Inc. v. Poli, 783 F. Supp. 670 (D. Mass. 1991), for the proposition that "delay to determine whether the scope of proposed infringement will justify the cost of litigation may be permissible." Borland III, 831 F. Supp. at 219. The lower court's reliance on this case is simply inexplicable. The plaintiff in Boothroyd had given "unambiguous" notice prior to bringing suit that it considered defendant's actions to be an infringement. Boothroyd, 783 F. Supp. at 691. In sharp contrast, Lotus deliberately refused to provide any notice whatsoever to Borland.

Lotus' objections to the Quattro products:

> The conclusion that the user interface as a whole is copyrightable (which this Court reached in Paperback) does not resolve the further questions that may now have to be resolved regarding the copying and copyrightability of individual parts or a sum of parts less than the user interface as a whole.

Borland I, 788 F. Supp. at 81. In its Borland I opinion, the lower court also held that, almost two years after this action was brought -- and five years after Quattro was first introduced -- Lotus still had not identified with any specificity those features of the Quattro programs which Lotus found objectionable. As the lower court stated, as of March 20, 1992, Lotus "ha[d] not formulated for the Court or for Borland its precise contentions . . . as to which elements of 1-2-3, separately or in combination, were copyrightable and were copied." Borland I, 788 F. Supp. at 98 (emphasis supplied).

The lower court's conclusion in Borland IV that Lotus was acting in Paperback to protect "the form of its menu tree" is not only contrary to its prior determination in Borland I, it is also squarely contradicted by Lotus' closing argument in Paperback:

> I mean that the reason we're doing this business about the classifications and we're trying to argue so hard that this is a single work is because we don't want the menus to have to be judged standing alone, that there isn't enough subject matter, there isn't enough writing there, there isn't enough words for that to be copyrightable subject matter.[82]

3. Borland was prejudiced by Lotus' delay.

At trial, Borland presented undisputed evidence that, in reliance on Lotus' delay in asserting its claims, Borland spent millions of dollars in acquiring and developing the technology incorporated into Quattro Pro.[83]

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[82] Paperback Trial Tr. Vol. XII at 73, App. 3. This statement alone constitutes a waiver by Lotus of claims against the 123-compatible mode. See CBS, Inc. v. Merrick, 716 F.2d 1292, 1295 (9th Cir. 1981).

[83] Kohn Decl. at ¶ 32, App. 564. Borland offered two Declarations of Robert Kohn, Esq., Borland's Vice President, Secretary and General Counsel (App. 554 and App. 612) to show Borland's considerations with respect to relevant matters and decisions of legal import. Lotus objected to this evidence on the ground that Mr. Kohn's testimony was insufficient to establish Borland's state of mind, and the lower court only admitted these statements into evidence to show Mr. Kohn's state of mind. Trial Tr. of Feb. 3, 1993, at 94-128, App. 111. Under the case law, the testimony of Kohn, as Borland's Vice President, Secretary and General Counsel, and the person upon whom Borland's CEO most heavily relies (Kahn Tr. at 146-147, App. 813), is clearly sufficient to show Borland's reliance. See Wafer Shave, Inc. v. Gillette Co., 1993 U.S. Dist. LEXIS

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Borland further showed that, had Lotus made its objections known earlier, Borland would have sought to negotiate a mutually acceptable resolution or, had that proved impossible, would have filed a declaratory judgment action to obtain a prompt determination of its rights at a much earlier stage, rather than risking millions of dollars in product development.[84]

In concluding that Borland did not suffer any prejudice as a result of Lotus' improper delay, the lower court stated that "Borland presented no evidence that it would not have acquired Surpass [the technology which was later incorporated into Quattro Pro] had Lotus taken action earlier." Borland III, 831 F. Supp. at 221. This holding simply ignores the uncontradicted testimony proffered by Borland and is clearly erroneous.

B. Lotus' Claims against the Key Reader are Barred by the Doctrine of Waiver.

To prevail on its claim of waiver, Borland must show that Lotus voluntarily relinquished a known right. CBS, Inc. v. Merrick, 716 F.2d 1292, 1295 (9th Cir. 1983). At trial, Borland demonstrated that Lotus explicitly and repeatedly waived its claim against the Key Reader. Where, as here, there are no facts in dispute, the question of waiver is one of law, and is reviewed by this Court de novo. Commercial Union Ins. Co. v. Gilbane Bldg. Co., 992 F.2d 386, 390 (1st Cir. 1993). Lotus' statements regarding the Key Reader constitute waiver as a matter of law, and the lower court's holding to the contrary should be reversed.

The pleadings and discovery in this case conclusively demonstrate that Lotus waived all claims against the Key Reader. Five months after the Key Reader was introduced, Lotus explicitly admitted that it had no claim against Borland's macro translation capabilities. In April, 1991, in response to a Borland Request For

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[83](...continued)
14734, at *23-24 (D. Mass. Oct. 12, 1993) (testimony of legal staff member sufficient to establish corporate policy).

[84] Kohn Decl. at ¶ 33, App. 564. In fact, Borland filed a declaratory judgment action upon its determination that it had a justiciable case or controversy with Lotus. Lemberg Decl., Ex. C (Complaint for Declaratory Judgment), App. 626.

Admission, Lotus stated that:

> Lotus admits that it does not contend that the inclusion in a spreadsheet program of the ability to execute "macros" originally written using Lotus 1-2-3 by means of a conversion or translation program, standing alone, would infringe Lotus' copyrights in Lotus 1-2-3 . . . .[85]

The lower court held that this clear statement did not constitute a waiver, emphasizing the second half of Lotus' response to Borland's Request For Admission, Borland IV, 831 F. Supp. at 236, in which Lotus stated:

> Lotus does contend that the 1-2-3 User Interface of Quattro and Quattro Pro, including, inter alia, its use of the 1-2-3 menu structure to provide the ability to execute macros originally written using Lotus 1-2-3, impermissibly copies protected expression contained in Lotus 1-2-3.

But this language refers explicitly, on its face, to the 123-compatible mode of Borland's products (the mode that actually displays the 1-2-3 menus) and has nothing whatsoever to do with the macro translation capability of the Key Reader. This may adequately preserve Lotus' rights to pursue a claim against the 123-compatible mode's ability to execute macros using the 1-2-3 menus on the screen, but does not and cannot cure the explicit waiver in the first part of the Response with respect to the Key Reader.

The lower court attempted to reconcile its decision with Lotus' unambiguous waiver by asserting that the first portion of Lotus' statement was only intended to waive claims against macro conversion facilities that do not use the Lotus "menu structure." Borland IV, 831 F. Supp. at 236. No such limitation is included in the first part of Lotus' statement, nor could any such limitation be sensibly read into Lotus' statement. Every macro conversion facility, "on-the-fly" or "one-way," must use the 1-2-3 menu structure, a point the lower court conceded earlier in the very same opinion. Id. at 230.[86]

The lower court also held that Lotus was not aware of Borland's Key Reader feature at the time it responded to Borland's Request For Admission. Id. at 236. Even if true, this cannot make a difference with

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[85] Lotus Response to Request for Admission No. 9, App. 997. At that time, Lotus also admitted that its claims in this action were limited to the 123-compatible mode of Borland's products, and that it did not have any claim against the native mode (which includes the Key Reader). Id. at No. 12, App. 998. The lower court later confirmed that the native mode was not at issue in this action. Borland II, 799 F. Supp. at 206.

[86] Lotus' counsel and Borland's expert agreed on this very same point during deposition. Liddle Tr. at 117, App. 866.

respect to the waiver that occurred. Neither Lotus nor the lower court explain why Lotus never amended its response to Borland's Request for Admission, nor did Lotus move to withdraw its response even though, by its own admission, Lotus was aware of the Key Reader in August, 1991 – over 17 months before trial was held on the Key Reader.[87]

CONCLUSION

The issue in this case is whether, for the effort of paying $20 and filing a Form TX, Lotus can invoke the copyright law to prevent a "selection and arrangement of executable operations" from being freely used by a competitor. The lower court's result is totally inconsistent with the statute, the case law and the fundamental tenets of copyright doctrine. For the reasons set forth herein, Borland asks the Court to reverse the lower

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[87] Lotus repeated its position concerning the Key Reader in its summary judgment briefing, and went so far as to have its own expert, James Emery, explain how the Key Reader works in a declaration prepared in October of 1991. Emery Decl. at ¶¶ 129-131, App. 376. The Key Reader was not an issue in this case at that time; the explanation of the Key Reader by Lotus' expert was plainly made to explain to the lower court that Borland could execute some 1-2-3 macros in a way that Lotus considered to be legal. Most assuredly, Lotus did not submit the Emery Declaration to show other illegal ways to run macros. In short, Lotus repeatedly endorsed the use of the Key Reader as a legal way to run macros, and the lower court's conclusions to the contrary are clearly erroneous.

Moreover, in its July, 1992 decision, the lower court gave Borland express direction as to what it could and should legally do to provide macro compatibility with 1-2-3. The lower court stated, "Use of just the initial letters of command words (together with long prompts) or of other symbolic tokens would have been a sufficient alternate method of implementing the system." Borland II, 799 F. Supp. at 218. The Key Reader takes the lower court's suggestion one step further, and uses only the initial letters of the 1-2-3 command words without using the long prompt. In deciding to retain the Key Reader feature in its products following the Borland II decision, Borland expressly relied on this passage from the Court's opinion. Kohn Supp. Decl. at ¶¶ 13-14, App. 618. In rejecting Borland's estoppel defense in Borland IV, the lower court chastised Borland for relying on its prior opinions, and held that the above-quoted passage was merely intended to discredit a defense argument, and not to provide guidance. Borland IV, 831 F. Supp. at 233-234. Borland respectfully submits that the lower court's quoted language speaks for itself and is not so limited.

court's award of summary judgment to Lotus, vacate the lower court's injunction, and reverse the lower court's denial of summary judgment to Borland.

Dated: December 13, 1993

Respectfully submitted,

WILSON, SONSINI, GOODRICH & ROSATI

DONNELLY, CONROY & GELHAAR

By: _____
Attorneys for Defendant/Appellant

BORLAND INTERNATIONAL, INC.

Certificate of Service

I hereby certify that a true copy of the foregoing was served on counsel of record for Plaintiff/Appellee herein by overnight courier, on _____, 199_.

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