Copyright, Computer Software, and Work Made for Hire

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Copyright, Computer Software, and Work Made for Hire

Initial copyright ownership normally vests in a work’s creator.¹ The rationale underlying this principle is straightforward: by granting creators a property right in their work, the law provides incentives to create.² The property right granted—a copyright—discourages others from duplicating the work and thus allows the creator to exploit the work for financial gain.³ When a creator independently undertakes a work, application of the principle is uncomplicated; as the sole initiating and creative force of the work, it seems clear that the creator must be granted the copyright in the work.⁴ Initial copyright

1. The current copyright statute, the Copyright Act of 1976, explicitly grants this right, stating that “[c]opyright in a work protected under this title vests initially in the author or authors of the work.” 17 U.S.C. § 201(a) (1988). Given the broad reach of the copyright statute, the more general term “creator” has been substituted throughout this Note for the narrower term “author.” As the term “author” is used in the statute, it refers to a much broader class of creators than commonly referred to by the term “author.”

2. This is the constitutional basis of copyright law. U.S. CONST. art. I, § 8, cl. 8 (“The Congress shall have Power ... To promote the Progress of Science and useful Arts, by securing for limited Times to Authors ... the exclusive Right to their ... Writings ...”); see also Sony Corp. of America v. Universal City Studios, 464 U.S. 417, 429 (1984) (Congress may grant a monopoly “to motivate the creative activity of authors ... by the provision of a special reward.”); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) (“The immediate effect of our copyright law is to secure a fair return for an ‘author’s’ creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good.”); THE FEDERALIST No. 43, at 288 (J. Madison) (J. Cooke ed. 1961) (“The public good fully coincides ... with the claims of individuals.”). Nonetheless, a secondary purpose of copyright has been recognized: “To give authors the reward due them for their contribution to society.” REGISTER OF COPYRIGHTS, U.S. COPYRIGHT OFFICE, HOUSE COMM. ON JUDICIARY, 87TH CONG., 1ST SESS., COPYRIGHT LAW REVISION 5 (Tent. Draft) (Comm. Print 1961). But see Lotus Dev. Corp. v. Paperback Software Intl., 740 F. Supp. 37, 52 (D. Mass. 1990) (“Copyright monopolies are not granted for the purpose of rewarding authors.”).

3. Intellectual property’s unique character mandates this property right. Unlike other forms of property, intellectual property cannot be possessed. Justice Holmes explained: “The notion of property starts, I suppose, from confirmed possession of a tangible object and consists in the right to exclude others from interference with the more or less free doing with it as one wills. But in copyright property has reached a more abstract expression. The right to exclude is not directed to an object in possession or owned, but is in vacuo, so to speak. It restrains the spontaneity of men where, but for it there would be nothing of any kind to hinder their doing as they saw fit. It is a prohibition of conduct remote from the persons or tangibles of the party having the right. It may be infringed a thousand miles from the owner and without his ever becoming aware of the wrong.” White-Smith Music Publishing Co. v. Apollo Co., 209 U.S. 1, 19 (1908) (Holmes, J., concurring).

4. Some commentators have argued, however, that copyright is unnecessary, and that other incentives exist sufficient to ensure production of creative works. See generally Breyer, The Un­easy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs, 84 HARV. L. REV. 281 (1970) (questioning the extension of copyrights); Hurt & Schuchman, The Economic Rationale of Copyright, 56 AM. ECON. REV., May 1966, at 421 (1965 Papers and Proceedings of the Amer. Econ. Assn.) (suggesting that further empirical work is needed before accepting the need for copyrights to produce incentives to create); Liebowitz, Copyright Law, Photocopying, and Price Discrimination, in RESEARCH IN LAW AND ECONOMICS: THE ECONOMICS OF PATENTS AND COPYRIGHTS 181 (J. Palmer & R. Zerbe eds. 1986) (arguing that non­enforcement of copyrights may be appropriate when the costs, such as diminished consumption of
ownership becomes more complex, however, when several creators collaborate to produce a work, or when a creator is hired to produce a work.

In this latter case, when a creator is working in another's employ, it may be appropriate to grant the initial copyright to the employer.\(^5\) Often the employer, rather than the creator, has initiated the creative process. Indeed, but for the actions of an employer, many creative works would not be undertaken.\(^6\) Moreover, the risk of commercial failure most often falls on the employer; in most arrangements, the creator is paid regardless of the commercial success or failure of the work.\(^7\) Accordingly, the employer needs assurance that its interest in the finished work will be protected. Granting the employer the initial copyright in the work is one means of protecting that interest.

In response to these concerns, the courts developed the work for hire doctrine. Congress later codified the doctrine, incorporating it in successive versions of general copyright statutes.\(^8\) The doctrine itself is deceptively simple. When an employee acting within the scope of employment creates a work, the hiring party is granted the initial copyright in the work.\(^9\) Defining "employee" has proved troublesome, however, for that definition necessarily circumscribes the doctrine.


5. Nothing in the copyright clause requires financial gains from a work to flow directly from end-users to creators. Dreyfuss, *The Creative Employee and the Copyright Act of 1976*, 54 U. CHI. L. REV. 590, 604 n.50 (1987). Excluded from this discussion are those cases in which the employer is in fact the creator. When the hired party does no more than carry out the specific instructions of the employer, and those instructions embody the creative aspects of the work, the employer is the creator and no issue of copyright ownership can arise. See infra note 45 (discussing Schumacher v. Schwencke, 25 F. 466 (S.D.N.Y. 1885), where the copyright was granted to the hiring party based on a finding that the hiring party was the creative force in the work).

6. See Register of Copyrights, U.S. Copyright Office, House Comm. on Judiciary, 88th Cong., 2d Sess., Copyright Law Revision Part 3: Preliminary Draft for Revised U.S. Copyright Law and Discussion and Comments on the Draft 267 (Comm. Print 1964) [hereinafter Copyright Law Revision Part 3] (comments of E. Perle, representing Time, Inc.) ("[W]here a work is made on commission . . . at least from a philosophical standpoint, that product would not be in existence were it not commissioned . . . . "). In addition, the employer is often in a better position to exploit the work; thus, the public interest in access to the work is furthered by vesting copyright in the employer. Hardy, *An Economic Understanding of Copyright Law's Work-Made-For-Hire Doctrine*, 12 COLUM. J.L. & ARTS 181, 181 (1988).

7. Cf. Register of Copyrights, U.S. Copyright Office, House Comm. on Judiciary, 87th Cong., 1st Sess., Copyright Law Revision 85 (Tent. Draft) (Comm. Print 1961) (As originally conceived, the doctrine was premised on the fact that "the employee is paid for the work; and . . . the employer, since he pays all the costs and bears all the risks of loss, should reap any gain.").

8. See infra notes 50-54, 61-79 and accompanying text.

9. Under current doctrine, the hiring party is not only granted initial ownership of the copyright, but is also considered the statutory author of the work. Although the notion that someone other than the actual creator of a work can be the work's author is counterintuitive, achieving authorship status has important legal consequences. See infra notes 140-42 and accompanying text. This doctrine is not unique to the United States; other countries such as Japan similarly
particular, the issue of whether independent contractors may be considered "employees" under work for hire doctrine has provoked widespread disagreement. The issue is important, for many creative works are produced on commission by independent contractors.

Prior to the Supreme Court's 1989 decision in Community for Creative Non-Violence v. Reid, the Circuits had disagreed over the question of whether independent contractors could qualify as "employees" under the doctrine. The Fifth, Ninth, and D.C. Circuits defined "employee" narrowly, thereby excluding the majority of commissioned works from potential work for hire status. Applying a much broader definition of the term, the Second and Seventh Circuits included virtually all commissioned works as work for hire. The disagreement was not surprising, since the copyright statute does not include a definition of the term, and the legislative history fails to illuminate the intent of the enacting Congress.

The Reid Court resolved the issue, adopting a narrow definition of "employee." Under the Reid test, the work for hire doctrine now excludes many works that might have qualified as work for hire under previous standards. In practical terms, hiring parties that commission work have lost the ability to designate such work as work for hire for all but a few, narrow categories of work.

This Note explores the consequences of this doctrinal shift for the computer software industry. The software industry relies almost exclusively on copyright law for protection of intellectual property rights. In addition, a substantial amount of software is produced by


10. For a discussion of the disagreement in the courts, see infra notes 87-133 and accompanying text.

11. See infra note 180.


13. See infra notes 87-133 and accompanying text.

14. See infra notes 87-133 and accompanying text.


16. See infra notes 89-91 and accompanying text.

17. The Supreme Court did not adopt the narrowest definition of the term. Under the Ninth Circuit's test, only formal, salaried employees could be considered employees for work for hire purposes. See Dumas v. Gommerman, 865 F.2d 1093, 1105 (9th Cir. 1989). For a more complete description of this test, see infra notes 124-33 and accompanying text. The test adopted by the Supreme Court parallels the test proposed by the Seventh Circuit. In adopting this test, applying agency law factors, the Supreme Court left slightly more leeway in the definition of employee. At this point in the discussion, the distinction is unimportant.

18. If Senator Thad Cochran is successful, it may become even more difficult to designate a work as a work for hire. Senator Cochran's bill, S. 1253, 101st Cong., 1st Sess., 135 CONG. REC. 7341 (1989), would further narrow the scope of potential work for hire. See infra note 202 for a list of recent attempts to amend the work for hire provisions.

19. Computer software is particularly in need of some form of intellectual property protection. Unlike many other copyrightable works, the price of software copies generally far exceeds the cost to produce an illicit copy. Thus, without some form of protection, much software would
independent contractors. As a result, the industry is particularly sensitive to changes in work for hire doctrine. This Note argues that the change brought about by the Reid Court poses substantial difficulties to the efficient exploitation of computer software.

This Note further contends that the computer software industry differs materially from other industries that rely on copyright law to protect intellectual property. For example, unlike many other industries, independent contractors in the software industry do not appear to need the protection gained by exclusion from potential work for hire status. In addition, excluding the software industry from the work for hire doctrine raises substantial barriers to efficient exploitation of completed works. This Note therefore suggests revising the current work for hire provisions to account for the unique aspects of the industry, allowing software to be included in the class of work that may be considered as work for hire.

Part I of this Note explores Reid, with a discussion of the standard to be applied to determine employee status. Part II briefly traces the history of the work for hire doctrine in an effort to put the Reid decision in context, and also to provide historical support for the reform proposed in Part IV. Part III argues that factors unique to the software industry warrant separate treatment under work for hire doctrine. Finally, Part IV advocates revising the work for hire provisions to permit parties to contract that a work be a work for hire when the work in question is computer software. Part IV also suggests that absent an agreement otherwise, software should be presumed to be a work for hire in those circumstances in which the hiring party is in a better position to ensure dissemination of the work to the public.

I. THE BOUNDARIES OF CURRENT WORK FOR HIRE DOCTRINE: COMMUNITY FOR CREATIVE NON-VIOLENCE V. REID

In the fall of 1985, the Community for Creative Non-Violence (CCNV), a nonprofit association dedicated to eliminating homelessness, entered into an agreement with James Earl Reid to produce a sculpture. Under the terms of the agreement, Reid was to receive $15,000 in return for creating a sculpture, designed by CCNV and

never be produced. Braunstein, Fischer, Ordover & Baumol, Economics of Property Rights as Applied to Computer Software and Data Bases, in TECHNOLOGY AND COPYRIGHT 237-38 (G. Bush & R. Dreyfus eds. 1979); see also Landes & Posner, An Economic Analysis of Copyright Law, 18 J. LEGAL STUD. 325, 326 (1989) (without copyright protection, the creator's revenues may not be sufficient to cover the cost of producing the work). For an explanation of why many creators choose copyright over trade secret or patent protection, see infra note 179.

20. See infra note 180.

21. Others have proposed a more ambitious solution to the many problems resulting from the poor fit between copyright law and computer software. These commentators would remove computer software from the realm of copyrightable subject matter, and instead provide a new form of protection. See infra note 203.
Reid together.22 As is typical in these types of arrangements, the contract was oral and the parties failed to discuss the issue of copyright ownership in the completed sculpture.23

CCNV envisioned the sculpture as a contemporary version of the Nativity scene, with two adult figures and an infant huddled over a steam grate. By displaying the finished sculpture, CCNV sought to emphasize the plight of the homeless. The sculpture's base was to bear the inscription "and still there is no room at the inn."24

Throughout November and the first half of December 1985, Reid worked exclusively on the project, assisted by numerous individuals paid with funds from CCNV. Representatives of CCNV visited Reid several times, to check his progress and to coordinate the separate development by CCNV of the base for the sculpture.25 Reid delivered the completed project on December 24, 1985.26

CCNV displayed the sculpture during the annual Christmas Pageant of Peace in Washington, D.C.27 In late January 1986, CCNV returned the sculpture to Reid for minor repairs, in preparation for a tour of several cities. Reid objected, claiming the sculpture was too fragile to withstand extensive transportation. He refused to return the sculpture and registered a copyright in the work in his name.28 CCNV responded by filing a competing registration.29

In resolving these conflicting claims of copyright ownership, the courts confronted the issue of whether Reid was an employee of

22. Community for Creative Non-Violence v. Reid, 109 S. Ct. 2166, 2169 (1989). Reid's initial motive was not profit-seeking; the $15,000 was merely to cover his costs. 109 S. Ct. at 2169.


25. 109 S. Ct. at 2169.

26. 109 S. Ct. at 2170.

27. 109 S. Ct. at 2170. Originally, CCNV had asked that the sculpture be included as part of the pageant. Organizers of the event refused to include the sculpture because they did not feel the pageant should be a platform for any causes. Mitch Snyder, the head of CCNV, responded: "Apparently, there is still no room at the inn. It's blatantly unconstitutional to keep us from displaying our version of the nativity. After all, the manger was a shelter 2,000 years ago." UPI, Nov. 26, 1985 (Regional News, Byline: Steven Ginsburg, available on Nexis). Snyder brought suit against the organizers, but failed to win access for the sculpture.

28. 109 S. Ct. at 2170.

29. 109 S. Ct. at 2170. CCNV also obtained a preliminary injunction requiring Reid to return the sculpture. 109 S. Ct. at 2170. The dispute became acrimonious. Reid claimed that he "was sucked in by a saint and then the Devil came out.... Would GOD lose HIS authorship of man despite his independent creative enterprise, through a dubious 'work for hire' clause in American copyright law?" Kastor, Whose Art Is It, Anyway?, Wash. Post, Mar. 27, 1989, at Cl, col. 3. Snyder explained, "[w]hat happened was, [Reid] believes the statue is worth a great deal of money. I believe he's somewhat delusional about that. He's talking millions and millions... I think he has gotten greedy." Id.
CCNV, as the term is defined in the work for hire provisions of the copyright statute. The statute provides:

A "work made for hire" is —

(1) a work prepared by an employee within the scope of his or her employment; or

(2) a work specially ordered or commissioned for use [1] as a contribution to a collective work, [2] as a part of a motion picture or other audiovisual work, [3] as a translation, [4] as a supplementary work, [5] as a compilation, [6] as an instructional text, [7] as a test, [8] as answer material for a test, or [9] as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire. 30

The sculpture could not qualify as a work for hire under subsection (2) because the parties had not executed the required writing. 31 Accordingly, work for hire status, and therefore copyright ownership in the work, turned on construction of the term "employee" in subsection (1).

The district court held for CCNV, finding that CCNV had exercised considerable direction over the creative process. 32 Under this court's definition of "employee," such direction was sufficient to qualify Reid as an employee of CCNV. 33 The D.C. Circuit reversed, utilizing a test of employment based on agency law principles, 34 as articulated by the Fifth Circuit in Easter Seal Society for Crippled Children & Adults v. Playboy Enterprises. 35 CCNV petitioned for a writ of certiorari.

On June 5, 1989, the Supreme Court resolved the then existing split among the circuit courts, 36 affirming the decision of the court of appeals, and adopting a standard that applies principles of agency law to determine employment status. 37 The Court's standard looks to the Restatement of Agency Law to determine employee status, and thus considers several factors, including:

(a) the extent of control which, by the agreement, the master may exercise over the details of the work;

(b) whether or not the one employed is engaged in a distinct occupation or business;

31. And even if they had, the work would not have fit within one of the listed categories of potential work for hire for commissioned works.
33. 652 F. Supp. at 1456.
35. 815 F.2d 323 (5th Cir. 1987).
36. See infra notes 87-133 and accompanying text for a more complete discussion of the circuit split.
the kind of occupation, with reference to whether, in the locality, the work is usually done under the direction of the employer or by a specialist without supervision;
(d) the skill required in the particular occupation;
(e) whether the employer or the workman supplies the instrumentalities, tools, and the place of work for the person doing the work;
(f) the length of time for which the person is employed;
(g) the method of payment, whether by the time or by the job;
(h) whether or not the work is part of the regular business of the employer;
(i) whether or not the parties believe they are creating the relation of master and servant; and
(j) whether the principal is or is not in business.\footnote{38}

Although the Court did resolve the question of the appropriate test of employment to be applied in these cases, the decision did not specify the appropriate means of applying the standard. Apparently all the listed factors should be considered — along with any other relevant factors\footnote{39} — and no one factor is dispositive.\footnote{40} Left unresolved is the weight to be attached to each of the listed factors. This omission may lead to unpredictable and inconsistent results, failings that have often been cited in criticism of prior tests of employment.\footnote{41}

Once a court makes the difficult determination of whether the creator qualifies as an employee, applying the provisions of section 101 is fairly mechanical. If the creator fails to qualify as an employee, then to attain work for hire status the work must fall within one of the nine

\footnote{38. 109 S. Ct. at 2178-79.}

\footnote{39. \textsc{Re}state\textsc{ment (Second) of A}gency \textsection 220(2) (1958) ("In determining whether one acting for another is a servant or an independent contractor, the following matters of fact, among others, are considered. . . .") (emphasis added).}

\footnote{40. The Court is clear on one point: the degree of control the hiring party exercises is not dispositive. 109 S. Ct. at 2179.}

\footnote{41. \textit{See infra} notes 87-133 and accompanying text (discussing the tests of employment existing in the various circuits prior to \textit{Reid}). In one sense, the Court was not breaking new ground here; in \textsc{National} Labor Relations Act cases, a similar test is applied to determine employee status. \textsc{See NLRB v. United Ins. Co. of Am.}, 390 U.S. 254, 258 (1968) (In determining whether an employee is in fact an independent contractor, "there is no shorthand formula or magic phrase than can be applied to find the answer, but all of the incidents of the relationship must be assessed and weighed with no one factor being decisive. What is important is that the total factual context is assessed in light of the pertinent common-law agency principles."). In any event, the indeterminacy of the test adopted by the \textit{Reid} Court will likely require employee status to be determined by the trier of fact, rather than by summary judgment. \textsc{See Morita v. Omni PublicationsIntl., Ltd.}, 741 F. Supp. 1107, 1111-13 (S.D.N.Y. 1990) (even if hiring party had exercised complete control over the commissioned photographer, arranged each photograph, controlled the lighting, selected the background, and ultimately selected which photograph would become a poster, given the inexact nature of the \textit{Reid} test, the issue must go to the trier of fact); \textsc{Schiller & Schmidt, Inc. v. Wallace Computer Servs., Inc.}, 1989 U.S. Dist. LEXIS 13974, 11-13 (N.D. Ill.) (denying summary judgment in light of \textit{Reid} standard); \textsc{Marshburn v. United States}, 20 Cl. Ct. 706 (1990) (same). For other cases applying the \textit{Reid} test, see M.G.B. Homes, Inc. v. Ameron Homes, Inc., 903 F.2d 1486, 1491-92 (11th Cir. 1990) (after reviewing facts in light of all of the \textit{Reid} factors, work was not a work for hire); \textsc{Kelstall-Whitney v. Mahar}, 1990 U.S. Dist. LEXIS 6186 (E.D. Pa.) (same).}
categories set forth in section 101(2). Furthermore, the parties must have executed a written agreement specifying the work as a work for hire. The law implies no presumption of work for hire status, even when the work falls within one of these enumerated categories: the statute simply grants permission to contract for work for hire status for these types of works.

Before considering the effect of the Court’s decision on the software industry, this Note takes a brief look at the history of the work for hire doctrine. A historical framework helps in understanding the extent of the change wrought by the Reid decision. The history of the doctrine also suggests several possible approaches for reformulating the law; at the same time, it provides guidance on avoiding past mistakes. Finally, and perhaps most important, a historical framework lends support to the argument that taking into account peculiarities of individual industries has been the rule, rather than the exception, in work for hire doctrine.

II. A BRIEF HISTORY OF THE WORK FOR HIRE DOCTRINE

A. The Origin and Growth of Work for Hire

Although the work for hire doctrine was first codified in the Copyright Act of 1909 (the 1909 Act), common law courts had been developing it for some time prior to congressional action. Traces of the doctrine can be found as early as half a century before the 1909 Act.

42. This stands in contrast to the doctrine as it existed in many of its earlier forms. See infra Part II.

43. See Easter Seal Soc'y. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 335 (5th Cir. 1987), cert. denied, 485 U.S. 981 (1988). Early drafts of the current work for hire provisions were much more generous with regards to the intent of the parties, allowing the parties to specify contractually the status of the work, irrespective of the type of work created. See, e.g., COPYRIGHT LAW REVISION PART 3, supra note 6, at 257 (comments of Abe Goldman, Copyright Office) (draft under discussion incorporates a presumption that may be varied by agreement).


45. Although many courts and commentators attribute the first judicial recognition of the doctrine to Dielman v. White, 102 F. 892 (D. Mass. 1900), at least as early as 1860 courts had begun to recognize the principle. The court in Roberts v. Myers, 20 F. Cas. 898 (D. Mass. 1860) (No. 11,906) considered the question of copyright ownership in a work authored by an employee. Bouicaut, a performer and stage manager in the employ of Stewart, had verbally agreed to write a play to be performed in Stewart's theater. 20 F. Cas. at 899. Bouicaut completed the play while employed by Stewart. 20 F. Cas. at 899. Apparently, the play was moderately successful: at least one other theater, the Winter Garden in New York City, thought enough of the play to present it in 1859. 20 F. Cas. at 898. The Winter Garden Performance was not authorized and thus precipitated the action for infringement. At first glance, Roberts appears to hold that a creator is entitled to the initial copyright in any work of authorship, regardless of whether or not the work was created in the employ of another. In discussing the agreement to write the play, the court stated that "[b]y this agreement Stewart acquired no right or interest in the play to be written, except the privilege of having it performed at his theater." 20 F. Cas. at 899. Thus, Stewart was not even entitled to an implied assignment of the rights in the play from Bouicaut; Stewart was simply a licensee for a particular theater. In any event, although the
and explicit recognition occurred nine years before Congress took action. Considering a dispute over a commissioned work in 1900, the court in *Dielman v. White*\(^46\) held that

[i]n general, when an artist is commissioned to execute a work of art not in existence at the time the commission is given, the burden of proving that he retains a copyright in the work of art executed, sold, and delivered under the commission rests heavily upon the artist himself.\(^47\)

A general rule of presumed assignment had thus emerged for commissioned works; the rule was equally applicable in the more obvious situation of traditional employment relationships. Supreme Court rec-

court granted the copyright to the author in this case, it also presaged future development of the doctrine. Emphasizing that the creator had not been originally employed as an author, 102 F. Cas. at 899, the court implied that had the initial employment agreement included authorship, the copyright would have rightfully belonged to the employer. The court may have been concerned about the inability of Stewart to exploit the work in other parts of the United States, yet it is not clear the Boucicault was in any better position to ensure public access to the play. *See* 20 F. Cas. at 899.

Twenty-five years later, in a similar dispute, the court in *Schumacher v. Schwencke*, 25 F. 466 (S.D.N.Y. 1885), did grant the copyright to the employer. 25 F. at 468. The court avoided, however, formulation of a general rule granting the copyright to an employer whenever a work is produced by an employee in the normal course of employment. Instead, the court found the employer in this case to be the "'originating, inventive and master mind'" of the work in question. 25 F. at 468. The court characterized the employee's contribution to the work as little more than a mechanical application of the employer's creative process. 25 F. at 468. Accordingly, the court was able to find for the employer without significantly exceeding the doctrinal limits of the law as it then existed.

\(^46\). 102 F. 892 (D. Mass. 1900). The disputed work was a mosaic, created by Dielman for the Congressional Library in Washington, D.C. 102 F. at 892. This dispute involved a commissioned work in contrast to many of the early work for hire cases, which involved works produced by employees. The importance of the distinction between commissioners and employers has persisted: it is part of the current work for hire provisions of the 1976 Act. 17 U.S.C. § 101 (1988).

In addition, unlike the work in question in *Schumacher v. Schwencke*, 25 F. 466 (S.D.N.Y. 1885), the hiring party in this case did not direct or control the creative process. 102 F. at 892. Although Dielman submitted some initial sketches of his proposed design, there is no indication whether the Library reviewed these sketches. And Dielman apparently did not submit his final sketch for any sort of approval before sending it to Venice where artisans used it to guide the manufacture of the actual mosaic. 102 F. at 893. The introduction of an apparent third party — it seems safe to assume that Dielman commissioned the manufacture of the mosaic by the Venice workers — also introduces additional problems of potential joint ownership under current law. Not only might Mr. Dielman be considered the author of the work, but so might the commissioned mosaic manufacturer in Venice. For a discussion of issues relevant to joint works, see *infra* notes 153-78 and accompanying text. In any event, because the hiring party had not in fact directed the work, the court could not rely on existing doctrine and simply find the commissioning party to be the author.

\(^47\). 102 F. at 894. It is not clear if the court was creating a presumption that the commissioning party is the statutory author or, alternatively, a presumption that the commissioned party has simply assigned all rights in the copyright to the commissioning party. Later cases suggest that the presumption is one of assignment. Under the 1976 Act, this distinction is important: assignments may be terminated after 35 years. 17 U.S.C. § 203(a) (1988). In addition, some foreign countries grant fewer rights to assignees than to authors — even when the assignee has obtained the exclusive right to exploit the work. *See infra* notes 194-201 and accompanying text (suggesting this may be an important consideration for owners of copyrights in computer software). In this case, the court does not specify what an author would have to show to overcome the presumption in favor of the commissioning party. One thing is clear, however: an author could retain the copyright by including appropriate language in the commissioning contract. 102 F. at 895.
ognition of the doctrine followed a mere three years after *Dielman*, in *Bleistein v. Donaldson Lithographing Co.*[^48] This presumption of assignment survived in one form or another until enactment of the revised work for hire provisions as part of the Copyright Act of 1976.[^49]

Heralded as a major development in the law of copyright,[^50] the 1909 Act added little to the then existing common law work for hire doctrine. The final version of the 1909 Act provided that “the word ‘author’ shall include an employer in the case of works made for hire”[^51] and that in the case of “any work copyrighted . . . by an employer for whom such work is made for hire, the proprietor of such copyright shall be entitled to a renewal.”[^52] No definition of a work for hire is given, nor does the Act include a definition of employer. The legislative history of the provisions is also silent on this issue.[^53]

[^48]: 188 U.S. 239 (1903). This case often has been cited as the origin of the work for hire doctrine. E.g., Real Estate Data, Inc. v. Sidwell Co., 809 F.2d 366, 371 (7th Cir. 1987); Annotation, *Application of “Work for Hire” Doctrine Under Federal Copyright Act*, 11 A.L.R. FED. 457, 461-62 (1976). But see Staff of Senate Comm. on the Judiciary, 86th Cong., 2d Sess., *Copyright Law Revision Study No. 13, Works Made for Hire and on Commission* 129 (Comm. Print 1960), reprinted in *1 Studies on Copyright* 719, 721 (A. Fischer mem. ed. 1963) [hereinafter *Works Made for Hire*]. Although the case is most often cited for its discussion of the unsuitability of the judiciary for determining artistic merit, e.g., A. Latman, R. Gorman & G. Ginsburg, *Copyright for the Nineties* 29 (3d ed. 1989), the Court precedes its now famous holding with a discussion of the propriety of the employer taking out a copyright in a work produced by an employee. Writing for the Court, Justice Holmes found sufficient evidence to infer that the work in question belonged to the employer since the work had “been produced by persons employed and paid by the [employer] in [the employer’s] establishment to make those very things.” 188 U.S. at 248. Thus, at this point in time, six years before enactment of the 1909 Act, the work for hire doctrine — in some form — was firmly established as an element of copyright law. The breadth of the doctrine was still being defined, for unlike later decisions by lower courts, the Court here was not confronted with the issue of the applicability of the doctrine to less well-defined relationships, such as those of commissioning party and independent contractor. Conceivably, a literal reading of the Court’s opinion could produce a similar result in the case where the independent contractor performed the work on the premises of the commissioning party.

[^49]: Under the 1976 Act, assignments cannot any longer be presumed; to be valid, all assignments must be made in writing. 17 U.S.C. § 204 (1988).

[^50]: Later, the Act was subject to much criticism, in particular, for its lack of clarity. One commentator notes that “the text of the statute has a maddeningly casual prolixity and imprecision throughout.” B. Kaplan, *An Unhurried View of Copyright* 40 (1967).


[^52]: Copyright Act of Mar. 4, 1909, ch. 320, § 23, 35 Stat. 1075, 1081. Note the subtle shift here. While prior case law supports copyright ownership vesting in the employer, the statute makes the employer the statutory author. The difference is important for certain rights, such as the right of renewal and rights of termination. See infra notes 140-42 and accompanying text.

[^53]: An early draft of the bill included in the definition of “author,” an “employer, in the case of a work produced by an employee during the hours for which his salary is paid, subject to any agreement to the contrary.” *Conference on Copyright, Memorandum Draft of a Bill to Amend and Consolidate the Acts Respecting Copyright* 13 (1906), reprinted in *Legislation History of the Copyright Act of 1909* pt. E, at xxxix-xxc (E. Brylawski & A. Goldman eds. 1976); *Conference on Copyright, Report*, 3d Sess., 1906, at 13. Given the elimination of this language from the final version of the Act, Congress may have intended the doctrine to include a class of relationships broader than traditional employment relationships. B. Varmer, *Works Made for Hire and on Commission*, 128 (1958), reprinted in *Studies on Copyright* supra note 48, at 719-20. On the other hand, that same early draft also had a provi-
Not surprisingly, the courts continued to develop the doctrine in the tradition of the common law. The issue soon arose in the context of commissioned works. Early cases involved commissioned photographs. Courts fashioned a rule under the 1909 Act whereby copyright ownership in the portrait was presumed in the commissioning party, when the photographer had been fairly compensated for his or her work. Shortly thereafter, the doctrine was extended to reach be-

sion explicitly deeming the commissioning party the author and thus entitled to the copyright in a photographic portrait, where the commissioned party was a photographer hired to produce a portrait. Conference on Copyright, Memorandum Draft of a Bill to Amend and Consolidate the Acts Respecting Copyright 13 (1906), reprinted in Legislation History of the Copyright Act of 1909 pt. E, at xxxix-xxx (E. Brylawski & A. Goldman eds. 1976); Conference on Copyright, Report, 3d Sess., 1906, at 13. This language was also omitted from the final version of the Act. Congress, therefore, probably chose not to include commissioning parties as potential authors. B. Varmer, supra, at 128, reprinted in Studies on Copyright, supra note 48, at 719-20. That only this one narrow type of relationship had been defined weakens this argument somewhat. Congress may have been motivated by a desire to protect a right to privacy for the individual photographed rather than by work for hire doctrine considerations. In fact, Congress plausibly intended to do little more than recognize the then developing doctrine and delegate its continued development to the courts. See Comment, Literary Property and Contracts for Hire, 2 De Paul L. Rev. 256, 256 (1956) (broad language of statute demonstrates that common law still governs work for hire status).

54. One of the first cases to construe the work for hire provisions of the 1909 Act was National Cloak & Suit Co. v. Kaufman, 189 F. 215 (C.C.M.D. Pa. 1911). In holding that the employer was the statutory author of a work produced by its employees, and thus entitled to the copyright in the work, the court cited several pre-1909 Act cases. 189 F. at 217. In so doing, the court acknowledged that, although the work for hire doctrine had been codified, the statute did no more than signal acquiescence to continued development of the doctrine by the courts.

55. The first of these cases is Altman v. New Haven Union Co., 254 F. 113 (D. Conn. 1918). In anticipation of graduation, the New Haven High School class of 1914 arranged to have a group photograph taken. 254 F. at 114. The agreement, however, was not one in which a fixed price was paid for services. Instead, the agreement had the photographer assume a certain degree of risk; the photographer would not be paid for taking the picture but would have an opportunity to profit by making the finished photographs available for purchase by class members. 254 F. at 114. Sales were poor, though, because the class committee undercut the market by taking the photograph to a printer who made an engraving of it to be included in the class yearbook. 254 F. at 115. Altman, the photographer, sued a newspaper that had unwittingly copied the photograph from the school yearbook. 254 F. at 116. In holding that Altman was the rightful owner of the copyright, the court formulated the following rule:

Where the photographer takes the portrait for the sitter under employment by the latter, it is the implied agreement that the property in the portrait is in the sitter, and neither the photographer nor a stranger has a right to print or make copies without permission from the sitter. . . . Where, however, the photograph is taken at the expense of the photographer and for his benefit, the sitter loses control of the disposition of the pictures, and the property right is in the photographer.

254 F. at 118; see also Lumiere v. Pathé Exchange, Inc., 275 F. 428, 428 (2d Cir. 1921) ("Whoever employs a photographer to take his picture for pay is entitled to the copyright as against the photographer, but a photographer who takes a picture for his own benefit and gratuitously is entitled to the copyright as against the sitter."). Had the class hired Altman for a fixed price, the copyright would have vested not in Altman, but in the class. 254 F. at 118.

In a similar case, involving photographs taken of an actor for the purpose of advertising a motion picture, the Second Circuit applied the foregoing rule to award copyright ownership to the commissioning party. Lumiere v. Robertson-Cole Distrib. Corp., 280 F. 550 (2d Cir. 1922). The outcome is explained by the fact that, unlike the photographer in Altman, this photographer had not taken the photographs at his own expense, hoping then to profit by exploiting the copyright. Lumiere was paid $809.50 for 3190 copies of the finished photographs and $57 for negatives of the photographs. 280 F. at 551. And, although the court portrays the relationship
Beyond the narrow context of photographic portraits. In expanding the rule, courts focused on the intent of the parties, and created a rebuttable presumption that a commissioned work would be considered a work for hire.\textsuperscript{56}

Courts had not yet extended the doctrine to presume the commissioning party to be the statutory author. Instead, the rule presumed assignment.\textsuperscript{57} The distinction is important, because the rights associated with authors as opposed to assignees are substantially different.\textsuperscript{58}

between the photographer and the commissioning party as one of "employment," clearly the work was commissioned.\textsuperscript{55} 280 F. at 552.

56. The Sixth Circuit confronted the issue of intent in a dispute over copyright infringement between two competing compilations of Ohio Statutes. W.H. Anderson Co. v. Baldwin Law Publishing Co., 27 F.2d 82 (6th Cir. 1928). After finding that the defendant had copied at least part of the plaintiff's work, the court considered whether the plaintiff, as an independent contractor hired by the Attorney General to produce the statutory compilation, held a copyright in the finished work. 27 F.2d at 88. The court framed a general rule:

An author is not necessarily precluded from copyrighting a work produced under contract with another person; the intent of the parties as to which of them shall have the right to copyright is decisive. Where a contract of employment is silent, there may be an implication in favor of the employer.

27 F.2d at 88 (emphasis added). Several important principles can be extracted from this holding. Regardless of whether the creator is working as a traditional employee or as a commissioned artist, the determinative factor in deciding copyright ownership is the manifested intent of the parties. Applying the rule to this case, the court found the State intended the publisher to hold the copyright. Evidence of this intent was found in the amount paid to the publisher by the State: it was barely sufficient to cover costs and made no allowance for overhead or profit. Accordingly, it "may properly be inferred that the parties did not intend [the publisher] to surrender a copyright in consideration of a sum less than the bare cost of the work." 27 F.2d at 88. Although the language of the rule differs from that formulated in the photography cases, the determinative factor — whether or not the independent contractor took on the work at some risk in hope of future profits to be generated from the copyright — is the same.

In addition, the court explicitly separated copyrightable works into two distinct classes: those produced by employees and those produced on commission. Although a presumption in favor of ownership of the copyright by an employer existed, under this court's formulation of the rule a work produced on commission weakens or extinguishes the presumption. This distinction between works produced by employees and works produced on commission still exists in current law, although with much different implications. 17 U.S.C. § 101 (1), (2) (1988) (works produced by employees are always considered work for hire; works produced on commission are not work for hire unless they fall within one of nine enumerated categories and a writing specifying the work is a work for hire has been executed).

The distinction between commissioned works and works produced by employees was short lived: the presumption in favor of ownership in the party paying for the work was broadened to include commissioning parties just a few years after \textit{W.H. Anderson Co}. In Yardley v. Houghton Mifflin Co., 108 F.2d 28 (2d Cir. 1939), the Second Circuit held that "[w]hen an artist accepts a commission to paint a picture for another for pay, he sells not only the picture but also the right to reproduce copies thereof unless the copyright is reserved to the artist by the terms, express or implicit, of the contract . . . ." 108 F.2d at 30. Later in the opinion the court stated that "the presumption should be indulged that the patron desires to control the publication of copies and that the artist consents that he may . . . ." 108 F.2d at 31. Moreover, the court attributed the presumption to the supposed intention of the parties, as did the court in \textit{W.H. Anderson Co}.


58. This distinction is important for a number of reasons. Assignors retain the right to terminate an assignment after a fixed period of time (currently set at 35 years). Further, in some foreign countries assignees enjoy a lower level of protection than statutory authors. \textit{See supra} note 47 and accompanying text. For a case after Yardley v. Houghton Mifflin Co., 108 F.2d 28
Another twenty-seven years passed before the doctrine was extended to presume statutory authorship for commissioning parties. Before that time, however, another significant development came from Congress. In 1955 a move to reform the copyright law began, and by 1965 the language that became the work for hire provisions in the 1976 Act were virtually complete.


1. Negotiating the Current Statute

Legislative efforts to replace the 1909 Act were in many ways unique. Congress faced the difficult task of rewriting a statute governing a complicated, technical area, in which it had little expertise. In response, Congress turned to artists, authors, and publishers for help. Congress did more than just ask for advice: industry representatives were instructed to reach satisfactory compromises on statutory language or face provisions unfavorable to all. Much of the debate among these representatives became a part of the official record and is often referred to in searching for legislative intent. The work for hire provisions were no exception. They resulted from a running debate among industry representatives, lasting several years, culminating in an agreement reached in 1965.

Congress began the revision process by appropriating funds for research and studies by the Copyright Office. In all, the Copyright Office completed thirty-five studies on subjects ranging from ownership in works produced jointly by more than one author to issues surrounding an author's right to renew a copyright. One study examined the
work for hire doctrine, concluding that although the copyright in works produced by an employee should vest in the employer, commissioned works should be excluded from the doctrine.\textsuperscript{66} An exception was allowed for commissioned photographs, in acknowledgement of existing case law.\textsuperscript{67}

An initial draft of the work for hire provisions, put forth in 1961, reflected these recommendations.\textsuperscript{68} The provisions defined a work for hire as a work resulting from a traditional employment relationship. A specific provision was included for portraits made on commission.\textsuperscript{69} This language was extensively modified prior to enactment.

A subsequent draft in 1961 dropped the special provision for portraits.\textsuperscript{70} By 1963 the provisions had been further simplified, stating that “[i]n the case of a work made for hire, the employer shall, for purposes of this title, be considered the author and shall have all of the rights comprised in the copyright unless the parties have expressly agreed otherwise.”\textsuperscript{71} Another section of the statute defined a work for hire as a work created by an employee, not to include works produced on commission.\textsuperscript{72} The draft excluded commissioned works because of the common belief that independent contractors lacked substantial

\textsuperscript{66} B. Varmer, \textit{supra} note 53, at 142, \textit{reprinted in} \textit{Studies on Copyright}, \textit{supra} note 48, at 734. Varmer acknowledges the parallel policy concerns of commissioned works and works made in a traditional employment relationship. \textit{Id}. Nevertheless, he advocates maintaining the distinction because of the history of the common law in treating these relationships differently. \textit{Id}. He also relies on the fact that “except in the case of photographs, a commission to produce a particular work is commonly the subject of a specific agreement.” \textit{Id}. Apparently, Varmer equates a written assignment with work for hire. Finally, given the “paucity of reported litigation over ownership of commissioned works” and the fact that the 1909 Act did not explicitly cover commissioned works, Varmer contends that the law had operated satisfactorily in this area. \textit{Id}.

\textsuperscript{67} B. Varmer, \textit{supra} note 53, at 143, \textit{reprinted in} \textit{Studies on Copyright}, \textit{supra} note 48, at 735. Varmer did not wholeheartedly advocate this exception: he warned of the risk of undue rigidity or possibly “unintended changes by implication.” \textit{Id}.

\textsuperscript{68} \textit{Register of Copyrights, U.S. Copyright Office, House Comm. on Judiciary, 87th Cong., 1st Sess., Copyright Law Revision (Tent. Draft) (Comm. Print 1961)}.

\textsuperscript{69} Under a heading of “Recommendations” the Report stated that

[i]n the statute should provide that copyright may be secured by the author or his representatives, successors, or assigns, except that —

a. In the case of a work made for hire (defined as a work created for an employer by an employee within the regular scope of his employment), the employer should have the right to secure copyright.

b. In the case of a portrait made on commission, the person who ordered the portrait should have the right to secure copyright. In the case of any other commissioned work, the author shall have that right unless expressly assigned.

c. . . .

\textit{Register of Copyrights, supra note 68, at ch. 7}.

\textsuperscript{70} \textit{Register of Copyrights, U.S. Copyright Office, House Comm. on Judiciary, 87th Cong., 1st Sess., Copyright Law Revision (Comm. Print 1961)}.

\textsuperscript{71} \textit{Copyright Law Revision Part 3, supra note 6, at 15} (footnote omitted).

\textsuperscript{72} \textit{Id}. at 15 n.11.
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bargaining power. Publishers and producers objected, and a subsequent bill included commissioned works as potential work for hire. The next revision, in 1965, embraced a "carefully balanced compromise," in which all but certain categories of commissioned works were excluded from potential work for hire status. Although Congress later expanded the list of categories, this language survived virtually intact to become part of the 1976 Act.

2. Courts’ Continued Expansion of the Doctrine

During the period between the drafting of the work for hire provisions and their enactment some ten years later, courts continued developing the doctrine. Indeed, by 1976 courts had expanded the doctrine well beyond the bounds of the dormant statutory language.

Beginning in 1966 with *Brattleboro Publishing Co. v. Winmill Publishing Corp.*, the Second Circuit expressly extended the doctrine to presume the employer was the statutory author. In so doing, the


77. Copyright Law Revision Part 6, supra note 75, at 174.


79. Throughout the negotiations, the public interest was unrepresented. By delegating the drafting process to industry representatives, and failing to oversee the process beyond ensuring that some compromise was achieved, Congress arguably ignored the interest of the public in gaining the widest access to copyrighted works. A partial explanation for this failure may lie in the complexity of the subject matter. Collective action problems may have also played a role. In any event, the process raises interesting issues regarding statutory interpretation well beyond the scope of this Note. For a discussion of these issues, see generally Litman, supra note 61.

80. If one accepts the Court’s interpretation of the provisions, as set forth in Community for Creative Non-Violence v. Reid, 109 S. Ct. 2166, 2174-78 (1989), judge-made work for hire doctrine had gone much too far.

81. 369 F.2d 565 (2d Cir. 1966).

82. 369 F.2d at 568. The *Brattleboro* decision may also be important because of the common perception that the Second Circuit is the leading copyright court. See Easter Seal Soc’y. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 325 (5th Cir. 1987) (the Second Circuit is the “de facto Copyright Court of the United States”), cert. denied, 485 U.S. 981
court did not limit this expansion to traditional employment relationships; the court held that the doctrine was similarly applicable to relationships between employers and independent contractors.83

Courts continued to broaden the doctrine. Two years later, the Second Circuit reformulated the test of whether a work was a work for hire. The revised test focused on which party initiated the work and which party paid for the work — a so-called “instance and expense” test.84 Under this criterion, the difference between commissioned works and works produced by traditional employees became virtually meaningless. The Fifth Circuit’s holding in Murray v. Gelderman85 further weakened this distinction. Not only did the court consider whether the project was one done at the “instance and expense” of another, but the Murray court also considered whether the commissioning party merely had the right to control the manner in which the work was performed.86

...(1988). A year earlier, the Ninth Circuit implicitly had reached a similar conclusion in Lin-Brook Builders Hardware v. Gertler, 352 F.2d 298 (9th Cir. 1965). In a dispute over work done by an independent contractor, the court held that “in the absence of an express contractual reservation of the copyright in the artist, the presumption arises that the mutual intent of the parties is that the title to the copyright shall be in the person at whose instance and expense the work is done.” 352 F.2d at 300 (emphasis added). Although the language may be construed to hold that the commissioning party is deemed to be the statutory author, it seems equally likely the court was simply perpetuating the then existing doctrine of presumed assignment, employing a variation in choice of words. In any event, the Brattleboro decision may also be important because of the common perception that the Second Circuit is the leading copyright court. See Easter Seal Socy. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 325 (5th Cir. 1987) (the Second Circuit is the “de facto Copyright Court of the United States”).

83. The court stated that it could “see no sound reason why these same principles are not applicable when the parties bear the relationship of employer and independent contractor.” 369 F.2d at 568. Despite the presumption, the court included a discussion of the equities of the case which also favored a finding that the employers were the authors of the work. 369 F.2d at 568. In addition, Chief Judge Lumbard concurred in the result alone, based on a finding of probable intent of the parties, and refused to join in the majority’s presumption. 369 F.2d at 569. Thus, it was not entirely clear that the doctrine would be extended to commissioned works in a less sympathetic case. Any doubt regarding this, however, was dispelled with the Second Circuit's subsequent decision in Picture Music, Inc. v. Bourne, Inc., 457 F.2d 1213 (2d Cir.), cert. denied, 409 U.S. 997 (1972). Like Brattleboro, this case involved the copyright to work produced by an independent contractor. 457 F.2d at 1214. The court concluded that the broad language of Brattleboro was applicable, and found the commissioning party to be the statutory author. 457 F.2d at 1215-16.


85. 566 F.2d at 1307 (5th Cir. 1978).

86. 566 F.2d at 1310. The court went on to state that “[a]ctual exercise of that right is not controlling, and copyright is vested in the employer who has no intention of overseeing the detailed activity of any employee hired for the very purpose of producing the material.” 569 F.2d at 1310. The court apparently feared that the employee could otherwise take advantage of the doctrine “simply by demanding creative freedom as a condition of employment.” 569 F.2d at 1311. See infra notes 93-105 and accompanying text for cases following this approach under the 1976 Act.
C. Construing the New Provisions

Following enactment of the 1976 Act, courts confronted the difficult task of interpreting the revised work for hire provisions. With the 1976 Act, Congress attempted to rewrite copyright law completely, and the work for hire provisions were considered part of this extensive revision. Nevertheless, legislative history failed to illuminate the enacting Congress' intent regarding the work for hire provisions. It was unclear to what degree existing law — law that was much different from the law that had existed when the provisions had been drafted ten years earlier — had been incorporated in the provisions.

The principal question courts faced was how to construe the term "employee." The term could be interpreted broadly, as developed by the courts during the period between the drafting of the provisions and their enactment. Or it could be construed more narrowly, in accord with earlier case law or perhaps with other, more settled definitions of the term. The enacting Congress' reluctance to reopen the issue was understandable, for the provisions were but a small part of a large, complicated piece of legislation. More important, Congress regarded the work for hire portion of the statute as a completed bargain and thus gave little attention to the substantive language of the provisions. This left the courts in a difficult position. Not surprisingly, at least four distinct constructions of the term emerged prior to the Supreme Court's resolution of the matter in Community for Creative Non-Violence v. Reid in 1989. A brief description of each follows.

1. Perpetuating the 1909 Act: The Right to Direct and Control Test

The right to direct and control test essentially mirrors the case law as it existed prior to enactment of the 1976 Act. Under this test, little significance is attached to whether the creator works as an inde-


89. A "work made for hire" is defined in § 101 as follows:
A "work made for hire" is —
(1) a work prepared by an employee within the scope of his or her employment; or
(2) a work specially ordered or commissioned . . . .


91. See Litman, supra note 61, at 901; Comment, supra note 88, at 1000-03.

92. This test is also referred to as the "instance and expense test."
pendent contractor or as a formal, salaried employee. Rather, the
touchstone is whether the hiring party had the right to direct and con­
trol a work, irrespective of whether the hiring party actually exercised
that right. If this test is satisfied, the creator qualifies as an "em­
ployee" under section 101(1), and the purchaser is therefore consid­
ered the statutory author of the work. This standard is easily met:
few commissioning relationships are entered in which the commission­
ing party does not retain the right to direct and control a work.

Only when the work falls into one of the nine enumerated catego­
ries of section 101(2), does the question of whether the creator has
been employed as an independent contractor become important.
Under this standard, these nine categories are classes of works afforded special protection by the work for hire provisions. For a
commissioning party to qualify as the statutory author of a work falling within one of these protected categories, the parties must execute a written agreement, specifying the work as a work for hire. Otherwise, regardless of retention of the right to control the work by the
commissioning party, the creator is the statutory author.

Although the right to direct and control test is consistent with

94. 815 F.2d at 331.
96. On the other hand, one court expressed concern that sellers could abuse this doctrine: "Allowing [the creator] to offer this "control" agreement — upon which she insisted — to demonstrate that the [hiring party] lacked the requisite supervisory powers over her work would permit [a creator] to circumvent the works for hire doctrine simply by demanding creative free­dom as a condition of employment." Murray v. Gelderman, 566 F.2d 1307, 1310 (Sth Cir. 1978). Professor Hardy has criticized this concern as illogical, for if the hiring party can delegate the right to direct and control the work, then the hiring party must have originally had the right. If the hiring party has the right initially, with the option of delegating it or retaining it, then the hiring party always has the right to direct and control and thus the hiring party will be the statutory author when this doctrine is applied. Hardy, supra note 6, at 216-17.
97. The categories include works created:
1 as a contribution to a collective work,
2 as a part of a motion picture or other audiovisual work,
3 as a translation,
4 as a supplementary work,
5 as a compilation,
6 as an instructional text,
7 as a test,
8 as answer material for a test,
9 or as an atlas,
if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.
98. See Easter Seal Socys for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 331 (5th Cir. 1987) (§ 101(2) "carves out special protections from the expansive old doctrine for a narrow group of sellers."), cert. denied, 485 U.S. 981 (1988); see also O'Meara, "Works Made for Hire" Under the Copyright Act of 1976 — Two Interpretations, 15 CREIGHTON L. REV. 523, 534 (1982).
prior law,\textsuperscript{100} it cannot be squared with congressional-intent — if one considers the relevant intent that of the drafting Congress. Admittedly, the boundaries of the constricted definition of employee are murky, yet the test fails entirely to narrow the class of potential work for hire. The test results in a strained interpretation of the provisions, for it makes little sense to infer that Congress meant to provide special protection to the works listed in section 101(2). Just the contrary appears to be true, for the listed categories encompass works particularly worthy of being considered work for hire. For example, most of the listed categories are collaborative works, for which a commissioning party would need to be the statutory author to obtain complete initial ownership. Without complete ownership of the copyright, the hiring party’s incentives to exploit the work are sharply reduced.\textsuperscript{101} It seems clear that the drafters intended some greater level of protection for commissioned parties.\textsuperscript{102}

Nonetheless, the right to direct and control test has some merit. One of the principal concerns of the drafters of the 1976 Act was increasing predictability of ownership in copyrights.\textsuperscript{103} Applying the right to direct and control test produces predictable results: initial copyright ownership will reside in the commissioning party in all but the most unusual circumstances.\textsuperscript{104}


Unlike the right to direct and control test, the agency law test differs radically from pre-1976 Act work for hire doctrine.\textsuperscript{105} Yet, this test has gained much wider acceptance than the right to direct and control test.\textsuperscript{106} Several courts implicitly applied the test in a number

\textsuperscript{100} In Town of Clarkstown v. Reeder, 566 F. Supp. 137 (S.D.N.Y. 1983), the court applied the right to direct and control standard to determine copyright ownership in a juvenile court manual produced by an independent contractor for the town of Clarkstown. Saying the decisive question was whether the employer retained the right to direct and supervise the work, the court held that the author was an employee of the town and therefore the town owned the copyright. 566 F. Supp. at 141-42. Similarly, in Peregrine v. Lauren Corp., 601 F. Supp. 828 (D. Colo. 1985), the court applied the test in holding that an independent contractor was an employee as defined by the work for hire provisions. The Peregrine court’s citation of pre-1976 Act case law to support its finding illustrates the court’s position that the 1976 Act had not altered the doctrine. See 601 F. Supp. at 829 (citing Lin-Brook Builders Hardware v. Gertler, 352 F.2d 298 (9th Cir. 1965)).

\textsuperscript{101} See infra notes 163-78 and accompanying text.

\textsuperscript{102} The intent of the enacting Congress is unknown. See supra notes 89-91 and accompanying text. The legislative history of the drafting process makes clear, however, that the drafters intended some narrowing of the class of potential work for hire. See supra notes 65-70 and accompanying text.

\textsuperscript{103} Easter Seal Socy. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 331 (5th Cir. 1987), cert. denied, 485 U.S. 981 (1986); W. Patry, Latman’s The Copyright Law 122 (6th ed. 1986).

\textsuperscript{104} Litman, supra note 61, at 894-95.

\textsuperscript{105} See O’Meara, supra note 98, at 526-32.

\textsuperscript{106} W. Patry, supra note 103, at 122.
of decisions. Furthermore, the Fifth Circuit explicitly adopted this test in *Easter Seal Society for Crippled Children & Adults v. Playboy Enterprises* as did the Supreme Court in *Community for Creative Non-Violence v. Reid.*

The test applies principles of agency law to determine if the relationship between the hired and hiring party is one of employment. Courts must weigh a laundry list of factors, in some indeterminate manner, to achieve some sense of whether the hired party is an agent and therefore a statutory employee of the hiring party.

Applying the agency law test of employment has several advantages. First, it can be harmonized with the division of independent contractors and employees in the statute. The test reasonably interprets congressional intent underlying the selection of categories of commissioned work in section 101(2) that may be work for hire. The drafters wanted to limit the reach of work for hire, yet accepted that some types of works, particularly collaborative works, should be allowed work for hire status. The test here eliminates the unrealistic assumption that the expressed categories were selected for special protection. By excluding all but the listed categories from potential work for hire status, the test provides heightened protection for commissioned parties.

Second, the test is in some contexts highly predictable. Formal,
salaried employees meet the test of agency law for employment; accordingly, works created by traditional employees will qualify as works for hire under section 101(1). On the other hand, in all but the most unusual circumstances, independent contractors will fail to meet the agency test of employment. As a result, in most cases the issue of work for hire status will not arise for commissioned works absent a written agreement to the contrary. Given a written agreement, the only question remaining is whether the work falls within one of the enumerated categories. These categories are well defined, since they have been frequently construed in defining the scope of copyrightable material in section 101, resulting in well-settled boundaries.

3. *A Middle Ground: The Actual Direct and Control Test*

Applying the actual direct and control test, if the commissioning party actually supervises and controls the creation of the work — as opposed to merely retaining the right to direct and control the work — the resulting work is considered a work for hire. The Second Circuit developed this test in *Aldon Accessories Limited v. Speigel, Inc.*

In holding for Aldon, the court distinguished between commissioned works where the commissioning party fails to exercise any creative control and commissioned works where the commissioning party

114. 17 U.S.C. § 101(2) (1988) (A work may only be a work for hire if “the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.”).

115. For an example of a case testing these limits, see Kieselstein-Cord v. Accessories by Pearl, Inc., 632 F.2d 989 (2d Cir. 1980) (testing the limits of pictorial, graphic and sculptural works).

116. 738 F.2d 548 (2d Cir.), cert. denied, 469 U.S. 982 (1984). Aldon had sued Speigel for infringement of its copyright in a line of decorative statues. Aldon had commissioned the creation of the statues with several foreign firms; more important for the court’s analysis, Aldon had exercised control over the creative process by supervising the design work. 738 F.2d at 549-50. Speigel defended, claiming that the foreign firms that produced the statues were the statutory authors. After losing, Speigel appealed, disputing the instruction to the jury to consider as determinative the commissioning party’s exercise of actual control over the work. The instruction follows:

A work for hire is a work prepared by what the law calls an employee working within the scope of his employment. What that means is, a person acting under the direction and supervision of the hiring author, at the hiring author’s instance and expense. It does not matter whether the for-hire creator is an employee in the sense of having a regular job with the hiring author. What matters is whether the hiring author caused the work to be made and exercised the right to direct and supervise the creation.

738 F.2d at 551. Speigel also objected to the judge’s charge regarding the relationship between proof of access and proof of similarity in determining whether copying had occurred. Speigel did not prevail on either argument. The Second Circuit held that the charge was correct and, even if it was not correct, counsel for Speigel had admitted similarity, making the error at most harmless. 738 F.2d at 553-54.

117. *Aldon* easily met the requirements of the actual direct and control test. Ginsburg, one of the principals in *Aldon*, traveled to the Orient to work directly with the artists in creating the statues. 738 F.2d at 553. Aldon would have likely qualified as a joint author even if the court had applied a work for hire test that favored Speigel. A finding of joint authorship presents additional problems. *See infra* notes 153-78 and accompanying text.
actually exercises such control. 118 Under this test, section 101(2), with its enumerated categories of potential work for hire, applies only when the commissioning party fails to exercise control over the work. 119

The Aldon court justified its holding on several grounds. First, the court found that Congress had been concerned with potential abuses by commissioning parties; this concern, though, was limited to those cases in which the commissioning party was not involved in the creative process. 120 Second, the court found troubling the inference that Congress intended radically to alter the scope of the work for hire doctrine, yet Congress failed to explain the change in the legislative history. 121 This test, on the other hand, incorporates much of the doctrine as it existed prior to the 1976 Act. It differs only by recognizing the special treatment accorded works falling within the enumerated categories of section 101(2).

The test nevertheless also perpetuates many of the problems associated with the doctrine prior to the 1976 Act. The test has been criticized for making business arrangements exceedingly difficult. 122 Potential creators and hiring parties must accurately predict whether or not sufficient control will be exercised to achieve work for hire status. The inquiry into the degree of control exercised is, by its very nature, fact specific. Conceivably, different works produced by and for the same parties could be treated differently depending on the degree of control exercised for each work. The test fails to further the goal of predictability in copyright ownership. 123

118. 738 F.2d at 553.
119. Dumas v. Gommerman, 865 F.2d 1093, 1102 (9th Cir. 1989).
120. 738 F.2d at 552.
121. 738 F.2d at 552. See generally O'Meara, supra note 98 (describing this test as the more conservative test, and the agency test as a radical change in the law).
122. Easter Seal Socy. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323, 333 (5th Cir. 1987), cert. denied, 485 U.S. 981 (1988); see also Comment, supra note 87, at 1304-05.
123. The test also has been criticized for allowing courts to revert easily to the less desirable right to direct and control test. In Easter Seal, the court cites Evans Newton Inc. v. Chicago Sys. Software, 793 F.2d 889 (7th Cir. 1986), as an example of a court applying the “right to direct and control” test under the guise of the actual control test. 815 F.2d at 334. The Easter Seal court goes on to criticize the actual control test on several other grounds. Claiming the test is unnecessary when actual control is exercised because the commissioning party is then a joint author of the work, the court seems to ignore the substantial differences between exclusive and joint ownership. See infra notes 163-73 and accompanying text. In addition, the court contends the test does not eliminate the primary difficulty of determining whether the work was produced by an employee or an independent contractor, since the actual control test only applies to independent contractors. What the court does not mention, however, is that none of the suggested tests eliminate this inquiry; indeed, the determination appears to be equally, if not more, difficult under the Easter Seal approach where the ten factors of the common law of agency must be applied to make the determination. 815 F.2d at 335-36, n.20. Moreover, one of the ten factors to be considered is the extent of control the employer may exercise over the employee. RESTATEMENT (SECOND) OF AGENCY § 220(2)(a) (1958) (In determining whether one is a servant, one factor to be considered is the “extent of control which, by the agreement, the master may exercise over the
4. The Formal, Salaried Employee Test

Of the four approaches, the formal, salaried employee test adopts the narrowest definition of the term "employee" in the work for hire provisions. Under most articulations of this test, only those creators qualifying as employees in the traditional sense of being paid a regular wage, with taxes withheld, could be found to be "employees." Any other relationship would be considered one of commissioning party to independent contractor. Under this test all but the most traditional employment relationships would be governed by section 101(2).

Few courts embraced this test. Only the Ninth Circuit endorsed it at the appellate level. In *Dumas v. Gommerman*, the court used the test to resolve a dispute over copyright ownership in a series of lithographs. After an extensive review of the statutory language, the statutory context, and the legislative history of the work for hire provisions, the court concluded that the only reasonable construction of "employee" limits the term to formal, salaried employees. In its analysis, the court rejected the actual direct and control test as inconsistent with both the plain language of the statute and manifest congressional intent. The court also rejected the agency test, finding that it unnecessarily introduced aspects of both genres of the direct and control test, for part of the test of employment under agency principles is an examination of the hiring party's right to control the work and the actual amount of supervision exercised by the hiring party.

Under the test advocated by the *Dumas* court, courts look to the following factors to determine whether the creator is an employee:

1. whether the artist worked in his or her own studio or on the premises of the buyer;
2. whether the buyer is in the regular business of creating works of the type purchased;
3. whether the artist works for several buyers at a time, or exclusively for one;
4. whether the buyer retains authority to assign additional projects to the artist;
5. the tax treatment of the relationship by the parties;
6. whether the artist is hired through the channels the buyer customarily uses for hiring new employees;

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124. 865 F.2d 1093 (9th Cir. 1989).
125. 865 F.2d at 1098-101.
126. 865 F.2d at 1102-04.
127. 865 F.2d at 1104.
128. For a discussion of the agency law test of employment, see *supra* notes 36-43 and accompanying text.
(7) whether the artist is paid a salary or wages, or is paid a flat fee; and
(8) whether the artist obtains from the buyer all benefits customarily
extended to its regular employees.\textsuperscript{129}

Although the court did not indicate the relative weight to be attached
to each of these factors, it seems clear that only creators in a formal,
salaried employment relationship would satisfy this test of
employment.

If the court’s objective was to effectuate the intent of the drafters of
the work for hire provisions, the court likely succeeded.\textsuperscript{130} The legis­
lative history supports the contention that the drafters perceived the
term as reaching only formal, salaried employees;\textsuperscript{131} whether the en­
acting Congress concurred is not known. Such a restrictive definition
may have other advantages as well: removing the direct-and-control
inquiry from the test might presumably decrease the number of dis­
putes arising over the status of the creator.\textsuperscript{132} As a result, predictabil­
ity of ownership is advanced under this test.\textsuperscript{133}

We turn now to the computer software industry. An understand­
ing of work for hire doctrine, both as it exists today and how it has
developed over the past century, provides the foundation for examin­
ing how the Supreme Court’s standard in \textit{Reid} will affect the software
industry. In particular, Part III considers whether the unique charac­
teristics of the software industry justify revising the law. Part IV then
concludes by suggesting the form a revision should take.

III. \textit{COMMUNITY FOR CREATIVE NON-VIOLENCE V. REID AND THE
SOFTWARE INDUSTRY}

This Part begins by examining why the software industry was ex­
cluded from the 1976 Act work for hire provisions. This Part then

\textsuperscript{129} 865 F.2d at 1105. These factors overlap significantly with the \textit{Restatement of Agency’s}
definition of a servant. \textit{See supra} notes 36-43 and accompanying text.

\textsuperscript{130} One reason courts have struggled with the work for hire provisions may be that unlike
many other statutes, much of the language was drafted by interested parties and not by members
of Congress or congressional staff members. \textit{See Litman, supra} note 61, at 862. Thus, while it
may be realistic to assume that Congress intended to use the term “employee” as it normally
does, defined by agency law, the use of other parties as drafters weakens the assumption. Yet
recall that the provisions were drafted in the early 1960s but were not enacted until 1976. If it is
the intent of the enacting legislature that one seeks to discover, the assumption that members
assumed employee to have been used in its normal fashion is more likely valid.

\textsuperscript{131} In the Register’s 1961 Preliminary Report, court decisions were reviewed, and it was
noted that courts had “not generally regarded commissioned works as ‘works made for hire.’ ”
Moreover, the report suggested that the revised law define works made for hire as “works created
by an employee within the regular scope of his employment,” because this definition would elimi­
nate commissioned works as potential works made for hire. \textit{Register of Copyrights, U.S.
Copyright Office, House Comm. on Judiciary, 87th Cong., 1st Sess., Copyright Law
Revision 86-87} (Tent. Draft) (Comm. Print 1961); \textit{see also} Hardy, supra note 6, at 210.

\textsuperscript{132} \textit{Dumas}, 865 F.2d at 1105. In addition, hiring parties would be put on notice that when
an artist holds him or herself out as a freelance artist, any work created will likely not qualify as a
work for hire. 865 F.2d at 1105.

\textsuperscript{133} Litman, \textit{supra} note 61, at 888 & n.203.
explores some of the unique attributes of the industry, focusing on why these attributes justify a modification of the law. Finally, this Part concludes by arguing for an industry-specific exception in the work for hire provisions.

A. The Exclusion of Computer Software from Section 101(2)

One issue raised by the history of the 1976 Act is why the software industry failed to assert its position during the negotiations over the work for hire provisions. The absence of computer software from the enumerated categories of potential works for hire in section 101(2) suggests that the industry itself considered the issue of minor importance. The history of the software industry, however, juxtaposed with the legislative history of the work for hire provisions, suggests otherwise.

Although Congress enacted the work for hire provisions in 1976, negotiations over the statutory language were completed by 1965. The software industry virtually did not exist at that time and therefore was unable to protect its interests. The industry did have an opportunity to reopen the issue when the provisions were enacted in 1976. Nevertheless, the industry was still immature and, perhaps more important, had little incentive to press for change. By then, work for hire doctrine presumed that the hiring party was the statutory author of a commissioned work. It was unclear whether the work for hire provisions modified the presumption outside of the nine enumerated categories.

134. See supra notes 68-79 and accompanying text.

135. In 1965, sales of software products were negligible. By 1970, the market had grown to $500 million per year. Five years later, just prior to enactment of the 1976 Act, the industry had doubled, with sales of $1 billion dollars per year. COMPUTER BUSINESS EQUIPMENT MANUFACTURERS ASSOCIATION, COMPUTER, BUSINESS EQUIPMENT, SOFTWARE, AND TELECOMMUNICATIONS INDUSTRY 1960-1995 113 (1986) (all figures in 1985 dollars). By 1985, the industry had increased to an astounding $12 billion dollars per year. Projections indicate that by 1995, the software products industry will exceed $40 billion dollars per year. Id.

136. See supra notes 80-86 and accompanying text. A similar opportunity presented itself in 1980 when Congress implemented the recommendations of the National Commission on New Technological Uses of Copyrighted Works (CONTU). Congress commissioned CONTU in 1974 to:

study and compile data on:

(1) the reproduction and use of copyrighted works of authorship ... in conjunction with automatic systems capable of storing, processing, retrieving, and transferring information . . .

... The Commission shall make recommendations as to such changes in copyright law or procedures that may be necessary to assure for such purposes access to copyrighted works, and to provide recognition of the rights of copyright owners.

categories in section 101(2). Consequently, prior to the Reid decision, the industry had little incentive to pursue a legislative solution.

B. Work for Hire as a Protection for Creators

Creators are thought generally to have less bargaining power than hiring parties. Unlike traditional employees, independent contractors do not have the option of collective bargaining as a means to counterbalance the generally stronger financial position of hiring parties. The current work for hire doctrine, which excludes most works from potential work for hire status, helps offset this imbalance. By preventing commissioners from bargaining for authorship rights, the doctrine protects creators. To be sure, commissioners will nearly always bargain for an assignment of all rights in the finished work. But creators, as the statutory author of a work, retain the right to terminate assignments after thirty-five years. This termination right provides the creator an opportunity to renegotiate the bargain and thus to share in the windfall of an unexpectedly successful work.

137. The disagreement among the circuits on this issue provides the most persuasive evidence of this ambiguity. See supra notes 87-133 and accompanying text.


139. In thinking about these situations, the negotiators often had in mind the paradigmatic "struggling artist," living on the edge of financial ruin, yet dedicated to her work. See Copyright Law Revision Part 2, supra note 73, at 106 (comments of Walter J. Derenger, United States Copyright Society) ("We are thinking, or some of us are thinking . . . of artists . . . who are struggling. . . . We know what happened to many living artists. We know that most of them become prosperous only after they are dead."). Not all participants felt the same solicitude for the plight of authors. For example, in referring to the work for hire provisions, Joseph Dubin of Universal Pictures commented:

That is a [section] that I think should have been prefaced by a musical accompaniment of "Hearts and Flowers." Everybody concerned with the preparation of this [section] was so solicitous about the poor author, who is in such a bad bargaining position that he must be protected from now till doomsday. I'm surprised the . . . report didn't suggest that when money is paid to him for his work that he has created he be made a ward of the Federal Government who shall supervise him so he wouldn't be likely to squander the money that has been paid to him . . . .

Copyright Law Revision Part 2, supra note 73, at 154.

140. See Dumas v. Gommerman, 865 F.2d 1093, 1101 (9th Cir. 1989) ("[I]t can fairly be assumed that the buyer will virtually always be able to contract for ownership of the copyright. . . ."); Hardy, supra note 6, at 190; Copyright Law Revision Part 3, supra note 6, at 262 (comments of Irwin Karp, Authors' League of America) ("You can always get an assignment of rights . . . .").

141. The grant of an assignment or license may be terminated any time during a five year period beginning thirty-five years after the grant is made, provided the creator meets certain notice provisions. 17 U.S.C. § 203 (1988).

142. Nonetheless, one pair of commentators has suggested this termination right may actually reduce incentives to creators. A publisher that must share any future speculative gain with
The right to terminate an assignment, however, is virtually worthless in the software industry. Software has a relatively short market life; in general, most software is obsolete within ten years of its creation. By the time a creator has an opportunity to exercise a termination right, the market for the software will almost surely have disappeared. The doctrine therefore fails to protect creators in the software industry in any substantial way.

The relatively short market life of software also reduces the speculative aspect of estimating the value of the work. Forecasts of commercial success necessarily depend on assumptions about general economic conditions as well as market-specific variables: the difficulty of estimating these factors increases as the forecast horizon is extended. Admittedly, the value of any work before it is created is inherently uncertain. And generally, uncertainty will be advantageous to the party in the stronger bargaining position; independent contractors are thus better off relative to commissioners when the value of a work is more certain. Relatively short market lives in the software industry reduce uncertainty, and thus diminish the need for protecting the bargaining position of independent contractors in this industry.

One further characteristic of the software industry decreases uncertainty surrounding the potential value of a work. Unlike many other copyrightable works, software does not tend to spawn derivative works in new markets. A successful novel may be used to create a work the creator will pay less for a work. Therefore, the creator must assume a certain degree of risk; if the creator is risk averse, the creator is worse off. Accordingly, creators that are risk averse will have less incentive to create. Landes & Posner, supra note 19, at 327.


144. Termination rights become effective after 35 years. See supra note 141. Conceivably, some software may be an exception to the general rule of short market lives. For example, Microsoft and Apple are in a dispute over particular aspects of Microsoft's Windows program that purportedly mimic the Apple Macintosh user interface. Apple Computer, Inc. v. Microsoft, No. C88 20149 RPA (N.D. Cal. 1987). Some of these features may be traced back to work done much earlier by a development group at Xerox. Flynn, Apple Copyright Suit Not Expected To Have Far-Reaching Impact, INFOWORLD, Jan. 9, 1989, at 34. This discussion necessarily implicates the much more pervasive issue of the scope of copyright protection for computer software, an issue beyond the confines of this Note. The resolution of that issue will affect the potential market life of any given software product: if software is given very broad protection, the possibility of some copyrightable element of the work surviving 35 years increases.


146. This results from information imbalances in the bargaining process. The party in the stronger economic position, in our case the commissioning party, will probably be in a better position to estimate the value of a work when that value is uncertain. The economically stronger party will likely have better access to the information necessary to make such calculations, or will likely be able to produce such information cheaper than the weaker party. Superior information and the resulting reduction in uncertainty for the stronger party improves that party's negotiating position. See Hardy, supra note 6, at 192-95. See generally J. Elster, THE CEMENT OF SOCIETY 50-96 (1989) (describing the bargaining process, and also pointing out that differing levels of risk aversion and impatience may play a similar role).
movie, television series, or even a line of children's toys.\textsuperscript{147} Software, on the other hand, may be used to create updated versions of the same program but the opportunity to produce derivative works in new markets is almost nonexistent.\textsuperscript{148} Admittedly, the range of potential success of a program is great; the program may be the next \textit{Pagemaker},\textsuperscript{149} or it may fail miserably.\textsuperscript{150} Nonetheless, forecasting sales involves predicting variables within a relatively well-defined market and a reasonable range of potential sales may be derived. Estimating the value of potential derivative works, particularly works competing in markets different from the original work, can not help but add uncertainty to the potential value of a work.\textsuperscript{151} Accordingly, the diminished role derivative works play in the software market weakens the need for protection by the work for hire doctrine.\textsuperscript{152}

\textbf{C. Increased Claims of Joint Ownership}

One likely result of the narrowing of the work for hire doctrine in \textit{Reid} is an increase in claims of joint authorship.\textsuperscript{153} Parties who might

\begin{itemize}
\item \textsuperscript{147} Nor is it necessary that the author be well-known to achieve commercial success with a derivative work. One recent example is Scott Turow's novel, \textit{Presumed Innocent}. Although he only received $200,000 for the book, he likely received much more for the movie rights. See Lenzner, \textit{Big-bucks Author Signings Could Become Book-Publishing Bust}, Chi. Trib., Aug. 13, 1990, § Bus., at 5.
\item \textsuperscript{148} Video games do provide one important exception here. The popularity of the Nintendo game \textit{Super Mario Brothers} has spawned several derivative works, including a \textit{Super Mario} television series, and plastic \textit{Super Mario} figures. Conversation with Ian Harris (July 12, 1990).
\item \textsuperscript{149} \textit{Pagemaker} created the market for desktop publishing software, the software that allows personal computers to produce typeset quality documents. Introduced in the mid 1980s, \textit{Pagemaker} has sold more than 400,000 copies. ALDUS CORP., \textit{ANNUAL REPORT TO STOCKHOLDERS} 3 (1990) (sales history through fiscal year 1989). An even more dramatic example is found in Microsoft's Windows version 3.0. In the first eight weeks on the market, Microsoft sold 800,000 copies. Lyons, \textit{Microsoft's Red-Hot Windows 3.0 Is Showing No Signs of Cooling Off}, PC WEEK, Aug. 13, 1990, at 116.
\item \textsuperscript{150} Those who follow the computer industry may recall one prominent loser, the operating system know as "CPM." Prior to the introduction of the IBM PC, CPM was the dominant operating system. With the introduction of the IBM PC, and Microsoft's MS-DOS operating system, CPM virtually disappeared. See Krey, \textit{Digital Research Makes Comeback With Competitive DOS Software}, BUS. J. SAN JOSE, May 21, 1990, § 1, at 10.
\item \textsuperscript{151} This factor, together with the difficulty of estimating the value of a work in the distant future, was a primary rationale for protecting creators through termination rights in the 1976 Act. See \textit{COPYRIGHT LAW REVISION PART 2, supra} note 73, at 319 (statement of Irwin Karp, Author's League of America) ("it has proven virtually impossible for authors (or users) to visualize, no less bargain intelligently, about new uses and new media"); see also Gallay, \textit{Authorship and Copyright of Works Made for Hire: Bugs in the Statutory System}, 8 COLUM.-VLA J.L. & ARTS 573, 578 (1984) ("the value of most derivative works is highly speculative at the time the first work is being negotiated for. . . .").
\item \textsuperscript{152} In addition, the utilitarian nature of software may itself aid in predicting the future value of a work. \textit{Cf.} Landes & Posner, \textit{supra} note 19, at 328 ("Uncertainty about demand is a particularly serious problem with respect to \textit{artistic works}, such as books, plays, movies, and recordings."); (emphasis added).
\item \textsuperscript{153} See Community for Creative Non-Violence v. Reid, 846 F.2d 1485, 1497 n.17 (D.C. Cir. 1988) ("With the substantial cutback of the work for hire doctrine under the 1976 Act, more cases of this genre can be expected to appear under the joint authorship rubric.").
\end{itemize}
have invoked the work for hire doctrine under the actual direct and control test may instead contend that the work is a product of joint authorship.\footnote{154} As a coauthor, a hiring party has a complete defense to any claim of infringement by the commissioned party. Similarly, any party involved in the creation of a work who wishes to grant a nonexclusive license to exploit the work may also contend the work is a product of joint authorship. Prior to \textit{Reid}, this issue did not often arise. Even though a commissioned party qualified in all respects as a joint author, once work for hire status was established, the issue of joint authorship became moot. Now, however, with the increased difficulty of establishing work for hire status, claims of joint authorship will likely increase.\footnote{155}

\section{Joint Authorship Requirements}

To answer whether a work was a product of joint authorship requires investigation of the intention of the parties at the time the work is undertaken.\footnote{156} The parties need not intend the legal consequence that their work be a joint work;\footnote{157} rather, creators must have intended

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\footnote{154. The \textit{Easter Seal} court recognized this, noting that “any buyer satisfying a seriously enforced ‘actual control’ test will ordinarily be a coauthor of the work.” \textit{Easter Seal Socy. for Crippled Children & Adults, Inc. v. Playboy Enters., 815 F.2d 323 (5th Cir. 1987) cert. denied, 485 U.S. 981 (1988); see also 133 CONG. REC. 6739 (daily ed. May 19, 1987) (discussing possibility of false claims of joint ownership following an unsuccessful claim of work for hire status). For a discussion of the requirements that must be met before a creator may be considered a joint author, see infra notes 156-62 and accompanying text.}

\footnote{155. See, e.g., \textit{Easter Seal}, 815 F.2d at 337 (in discussing the disputed work, the court noted that “[a]lthough the parties have refused to acknowledge it for their own reasons, it seems clear to us that at least the . . . tapes . . . were interdependent joint works”); Ashton-Tate Corp. v. Ross, 728 F. Supp. 597, 601 (N.D. Cal. 1989) (relying on the Court of Appeals opinion in \textit{Reid}, defendant makes an unsuccessful argument that the work in question was a joint work). \textit{affd.}, 1990 U.S. App. Lexis 17435 (9th Cir.). Courts used the joint authorship doctrine to resolve work for hire cases prior to \textit{Reid} as well. See \textit{Mister B Textiles Inc. v. Woodcrest Fabrics, Inc.}, 523 F. Supp. 21, 24-25 (S.D.N.Y. 1981) (after rejecting the work for hire argument, finding the work was a work of joint authorship).

Admittedly, Senator Cochran’s suggested tightening of the work for hire provisions attempts to counter this difficulty. His bill requires that all joint authors execute a written agreement that the proposed work will be a joint work, before the work is undertaken. S. 1253, 101st Cong., 1st Sess., 135 CONG. REC. 7341, 7343 (June 22, 1989). This leaves open the question, however, of what to do with works that are in fact joint works, yet the authors have failed to meet the writing requirement. If a dispute arises, under Senator Cochran’s proposal, courts will be unable to achieve any type of equitable result in these situations.

\footnote{156. The 1976 Act defines a joint work as “a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole.” 17 U.S.C. § 101 (1988). By focusing on the intent of the parties at the time the work was completed, the 1976 Act significantly narrowed the class of potential joint works. W. PATRY, \textit{supra} note 103, at 115-16.}

\footnote{157. In this discussion, the term “joint work” is used to refer to works of joint authorship.}

\footnote{157. \textit{Ct. 2166 (1989); O'Meara, \textit{supra} note 98, at 539 (claims of joint ownership will increase if work for hire doctrine is narrowed); cf. Dumas v. Gommerman, 865 F.2d 1093, 1105 n.22 (9th Cir. 1989) (“In situations where the commissioning party provides significant creative input, the two might be coauthors of a ‘joint work.’”). For joint authorship claims arising after \textit{Reid}, see S.O.S., Inc. v. Payday, Inc., 886 F.2d 1081, 1086-87 (9th Cir. 1989) (denying coauthor status to hiring party for commissioned software).}
that their individual creations become "inseparable or interdependent parts of a unitary whole." The legal consequence of joint work status follows once this intent is found. If the creators lack this intent, or alternatively, if the creators fail to develop this intent until the work is complete, the work does not qualify as a joint work.

Although the difference between creating a joint work as a result of the joining of "inseparable" parts rather than "interdependent" parts is largely unimportant, a general understanding of what qualifies under each category aids in understanding the potential scope of works that may qualify as joint works. A novel or play written by two collaborating authors serves as an example of a joint work resulting from independent authorship merged into an inseparable whole. A joint work created from several interdependent creations, on the other hand, consists of contributions that still may be independently identified when the work is complete. To illustrate, several authors collaborating to create an encyclopedia, with each author contributing separate writings, would result in a joint work consisting of interdependent creations.

2. Rights of Joint Authors

Joint authors hold rights similar to tenants in common. Each coauthor has an undivided right to exploit the work. Nonexclusive licenses may be granted by any coauthor without obtaining consent from any other coauthor. Similarly, each joint author may assign...
her rights in the work to a third party.\textsuperscript{165} Exclusive licenses, however, may only be granted with the express, written consent of all joint authors.\textsuperscript{166} In addition, each coauthor must account to all other coauthors for any profits earned from exploiting the work; such profits are divided equally among coauthors.\textsuperscript{167} Profits are not divided based on each coauthor's respective contribution to the work. As long as the coauthor's contribution is not de minimis, the author is entitled to an equivalent share of the profits.\textsuperscript{168}

Although the structure of rights in joint works may in some situations produce equitable results, it also raises barriers to exploitation of the work. With several coauthors, it may be difficult, and sometimes impossible, for a potential buyer to negotiate an exclusive license.\textsuperscript{169} This may conflict with the public's interest in access to copyrighted works.\textsuperscript{170} Take, for example, the case of a play written by several members of a theater company.\textsuperscript{171} Assume the play is a success, and a motion picture studio is interested in movie rights in the play. The studio likely will not settle for less than an exclusive license, yet any of the play's coauthors may prevent the granting of such a license.\textsuperscript{172} As the number of coauthors in a work increases, so does the magnitude of this problem.\textsuperscript{173}

Many works previously considered work for hire also qualify as joint works. For example, in \textit{Community for Creative Non-Violence v. Reid}, the Court recognized this possibility and remanded on the issue

\textsuperscript{165} NIMMER, \textit{supra} note 90, at § 6.14 (1989).
\textsuperscript{166} W. PATRY, \textit{supra} note 103, at 117.
\textsuperscript{168} In some contexts, this is not troubling. For example, in Edward V. Marks Music Corp. v. Jerry Vogel Music Co., 140 F.2d 266 (2d Cir. 1944), the disagreement regarded profits from a song created by two authors: one had written music and the other had written lyrics. 140 F.2d at 266-67. It is difficult to imagine how one or the other could claim that their contribution added significantly more to the popularity of the resulting song. Other contexts, however, produce more anomalous results. For example, if one creator writes a single subroutine for a computer program, while the other creator writes the rest of the program, equity suggests something other than an even division of the proceeds from any sales.
\textsuperscript{169} \textit{See} COPYRIGHT LAW REVISION PART 2, \textit{supra} note 73, at 159-60 (comments of Joseph Dubin, Universal Pictures, Inc.) (discussing impracticability of obtaining assignments when a large number of creators are involved in producing a motion picture).
\textsuperscript{170} One of the primary rationales justifying existence of copyright protection is the public interest in securing access to the "useful arts." \textit{See} \textsuperscript{169} supra note 2.
\textsuperscript{171} Professor Jessica Litman provided this example.
\textsuperscript{172} One further difficulty may arise. With the passage of time, and perhaps several intervening conveyances of rights, it may not be possible to locate all of the work's co-authors.
\textsuperscript{173} There is an extensive body of economic literature documenting the problem of holdouts. \textit{See}, e.g., M. OLSON, \textsc{The Logic of Collective Action} 40-42 (1965). In addition, a representative of authors in the negotiations over the provisions conceded the increased importance of gaining work for hire status for works when many creators are involved. COPYRIGHT LAW REVISION PART 2, \textit{supra} note 73, at 155 (statement of Irwin Karp, Authors League of America).
of joint authorship. Not only is it likely that CCNV could qualify as a coauthor of "Third World America," but each of the several assistants hired by Reid to assist in completing the project might also qualify as joint authors. Earlier cases are susceptible to similar analysis.  

To avoid this problem, commissioning parties might obtain an assignment of all rights from each potential coauthor before starting the work. Yet even this may prove troublesome. In Reid, for example, it seems reasonable to expect CCNV to have anticipated Reid's position and required an assignment of all rights in "Third World America" before beginning the work. Yet Reid himself hired independent contractors to help complete the sculpture. An assignment from Reid to CCNV would not have invalidated the claims of the hired assistants. Thus, even if CCNV had possessed the foresight to anticipate Reid's late assertion of copyright ownership, CCNV still may have been left with less than exclusive ownership of the work's copyright.

3. The Hazard to the Software Industry

The software industry is particularly vulnerable to increased claims of joint authorship. A substantial portion of the software

175. Reid was assisted at various times by a dozen different people. 109 S. Ct. at 2169.
176. One other case that illustrates the point, in a slightly different context, is Aldon Accessories Ltd. v. Speigel, Inc., 738 F.2d 548 (2d Cir.), cert. denied, 469 U.S. 982 (1984). See supra notes 116-18 and accompanying text for a more detailed description of the facts of the case. In this case, the hiring party, Aldon, exercised sufficient direction and control over the production of a number of decorative statuettes to meet the now obsolete direct and control test for work for hire. 738 F.2d at 553. Although Aldon failed to meet the agency test of employment standard, its contributions to the work were more than sufficient to cross the threshold of de minimis contribution to a joint work. Comment, Joint Ownership of Computer Software Copyright: A Solution to Work for Hire Dilemma, 137 U. PA. L. REV. 1251, 1274 (1989). In addition, both Aldon and the foreign artists involved in creating the work intended that their efforts be merged into an inseparable whole. See 738 F.2d at 553. Accordingly, the work qualifies as a joint work. More generally, whenever the hiring party exercises sufficient supervision and control of the work to meet the now overruled direct and control test for work for hire, the hiring party will likely qualify as a joint author. This is not true, however, for works that qualified as work for hire under the less stringent "right to direct and control" test.
177. See supra notes 25-26 and accompanying text.
178. Warranties and indemnification clauses, incorporated into sales contracts to protect against later claims of joint authorship by then unnamed subcontractors, may work — at some substantial cost — to help alleviate these concerns.
179. In general, the industry relies on copyright law for protection. Although other forms of protection are available for computer software, including trade secret law and, increasingly, patent law, copyright law protects the majority of software produced. Both trade secret and patent law have distinct disadvantages as means of protecting software. For widely distributed software, trade secret law is ineffective; the secrecy requirement is difficult to meet. Patent law, on other hand, provides much more extensive protection; yet it is difficult to procure a patent in a timely manner. Given the rapid pace of technological development in software industry, by the time a patent is issued, the software may well be obsolete. See Soma & Smith, Software Trends: Who's Getting How Many of What? 1978 to 1987, 71 J. PAT. & TRADEMARK OFF. SOCY. 415, 418-19, 425 (1989) (only 262 software patents issued between Jan. 1, 1978 and Dec. 31, 1987; average time to obtain such a patent was 31.4 months).
produced in the United States is created as the result of the work of independent contractors, and each work often involves the efforts of many creators. Thus, after Reid, claims of joint ownership likely will increase in the software industry.

The software industry may be divided into two broad categories. One segment produces package software. Similar to many manufacturing industries, this segment of the software industry produces relatively large quantities of standardized products, spreading development costs over many purchasers. Two common examples of such products are word processing and spreadsheet packages. In producing these standardized products, software companies often make use of independent contractors. Not only is this segment the most widely recognized in the industry — perhaps because of its influence of the personal computer market — it is also the fastest growing segment of the industry.

The other important segment of the software industry produces customized software. Providers of this type of software generally work closely with customers, designing and building unique systems to meet the individual needs of each customer. By its very nature, this segment produces software predominantly as a result of commissions, for the software companies are most often hired as independent con-

180. In one recent study of computer industry employment, one fifth of the data-processing and software design professionals surveyed indicated that they planned to set out on their own as independent contractors, when asked where they would like to be working in five years. L. ROTH, MANAGING THE TECHNICAL WORKFORCE (1984) (Table A-17 in Appendix). Obviously, not all those who intend to become self-employed follow through with their plans. Nonetheless, one industry group forecasts that in 1990, 1 of every 14 systems analysts and 1 in 20 of the broader group of all software professionals will be self-employed. COMPUTER BUSINESS EQUIPMENT MANUFACTURER’S ASSOC., MEMO FROM LIN SMITH TO DEBBIE MISELMAN, Apr. 18, 1989; see also Dykstra, Dispelling a Myth: Evidence of a Shakeout, COMPUTERWORLD, Sept. 10, 1984, at 114 (noting the large number of new independent contractors in the software industry); Castillo, Bill Safeguards Data Programs, N.Y. Times, Dec. 4, 1980, § D1, col. 3 (also noting the significant number of programmers working as independent contractors). One of the attractions of working as an independent contractor in the software industry is the potential to substantially increase one’s income. Ludlum, Contract Work: Risk v. Reward, COMPUTERWORLD, June, 20, 1988, at 79.

More important than the number of self-employed developers, however, is the widespread employment of software companies that function as independent contractors. See infra notes 184-85 and accompanying text.

181. This breakdown is a common means of describing the industry. See, e.g., K. FISHMAN, THE COMPUTER ESTABLISHMENT 267 (1981) (describing the industry in these terms).

182. For the reasons why companies need to go outside the firm to complete projects, see infra notes 186-90 and accompanying text.

183. See THE FUTURE OF INFORMATION PROCESSING TECHNOLOGY 196 (S. Andriole ed. 1985) (packaged software will make up an increasingly large portion of the market).

184. Although this segmentation is useful for explaining the structure of the software industry, in practice, producers of software fall along a spectrum with these segments at the two extremes. For example, a company may have a base product that it sells to customers, which it then modifies to meet the particular needs of the customer for an additional fee. See, e.g., S.O.S., Inc. v. Payday, Inc., 886 F.2d 1081, 1083-84 (9th Cir. 1989).
tractors to produce the specific software. Moreover, contractors themselves make use of independent subcontractors, and thus face concerns similar to those of software companies in the package segment.

Firms rely on independent contractors for a variety of reasons. As software has developed, both in a broader spectrum of subject matter and to a greater level of complexity, demand for specialists with particular skills has increased. Firms often find it more cost-effective to hire independent contractors to fill these needs. In addition, the needs of a software company are often transient, again making the employment of independent contractors, as opposed to regular, salaried employees, advantageous. Not only are independent contractors used, but they often are used in large numbers to complete a single project. Demand for these types of services is expected to continue to experience strong growth.

Moreover, the hazard of joint authorship claims is particularly acute in the software industry because a single work often involves the


186. Ludlum, supra note 180, at 79. A more general problem is the overall lack of skilled creators in this field. HIGH TECHNOLOGY INTERNATIONAL TRADE AND COMPETITION 77 (J. Paul ed. 1984).


188. A contractor's assignment typically lasts three to six months. Ludlum, supra note 180, at 179; see also Lederer, supra note 187, at 354. For an example of a company seeking out the services of a creator with a particular skill, see K. Fishman, supra note 181, at 276 (vendor hiring a consultant to fix a compiler). Firms also make use of independent contractors as a means of adjusting employment levels in anticipation of economic slowdowns. See Stevens, Cost Control Dominates in New MIS Hiring Season, COMPUTERWORLD, Feb. 15, 1988, at 95.

189. This is understandable given the size of some projects. For example, even in something as simple as a payroll system, it may require as many as 236 separate programs. See S.O.S., Inc., 886 F.2d at 1083. Like the motion picture industry — which is included in the work for hire provisions — the production of a finished work in the software industry often involves the creative efforts of many people. With a large group involved in a project, the difficulty and risk associated with obtaining assignments increases: this was one of the motivating factors in including the motion picture industry in the work for hire provisions. See COPYRIGHT LAW REVISION PART 3, supra note 6, at 269-70 (comments of Irwin Karp, Authors League of America) (conceding that when large numbers of commissioned parties are used to produce a single work, in this case a motion picture, work for hire status is justified); cf. COPYRIGHT LAW REVISION PART 2, supra note 73, at 145 (comments of Harry R. Olsson, Jr., National Broadcasting Corp.) (discussing difficulty facing potential purchaser of motion picture because of the uncertainty produced by potential claims of joint ownership). Similar concerns justified including other works such as maps and encyclopedias in the provisions. COPYRIGHT LAW REVISION PART 3, supra note 6, at 341 (statement of American Textbook Publishers Institute) (discussing impracticality of hiring as employees contributors to collective works such as encyclopedias). Finally, the concern over the practicability of excluding works where numerous creators collaborate to produce a single work has resulted in retention of motion pictures as potential work for hire in a recent proposed amendment to the work for hire provisions. 133 CONG. REC. 6738 (daily ed. May 19, 1987) (statement of Senator Cochran).

190. Ludlum, supra note 180 (noting that demand is expected to grow 20% per year for the five years beginning in 1988).
work of numerous creators. The logical structure of programs lends itself to dividing the work among many; given the complexity of many applications it is not surprising that the efforts of many creators may be necessary to complete a work.\textsuperscript{191} When these creators are independent contractors, the issue of joint authorship can arise.

The common use of independent contractors, particularly on projects involving numerous creators, combined with the virtual exclusion of software from the work for hire doctrine,\textsuperscript{192} poses substantial problems. Claims of joint ownership — with the associated impediment to exploitation of a work — will likely increase.\textsuperscript{193}

### D. Loss of Rights in Foreign Markets

Failing to obtain authorship status presents one further problem for commissioning parties. As in the United States, copyright is the dominant form of protection of computer software in international markets.\textsuperscript{194} In several foreign countries, certain rights may only be exercised by authors.\textsuperscript{195} These rights, typically referred to as "moral rights,"\textsuperscript{196} can be important: they include, for example, the right to control the production of derivative works.\textsuperscript{197} Because receiving assignments from all joint authors does not transform the hiring party into the work's statutory author, it fails to secure these rights.\textsuperscript{198} In

\begin{itemize}
\item \textsuperscript{191} See generally F. Brooks, \textit{The Mythical Man - Month} (1975) (describing the management of the development of large operating system projects).
\item \textsuperscript{192} In some instances, it may be possible to fit a work into one of the enumerated categories of potential work for hire. For example, a conversion of a program from one programming language to another, or from one operating system to another, may qualify as a translation under \S 101(2).
\item \textsuperscript{193} For an early indication that the predictions of increased claims of joint authorship are well-grounded, see Ashton-Tate Corp. v. Ross, 728 F. Supp. 597 (N.D. Cal. 1989), affd., 1990 U.S. App. Lexis 17435 (9th Cir.) (relying on the court of appeals opinion in \textit{Reid}, defendant makes an unsuccessful argument that the work in question was a joint work).
\item \textsuperscript{195} In general, the issue of adequate legal protection for software is of great concern to the software industry. \textit{Id.} The moral rights issue is currently being litigated country by country. For a general description of this issue, see Ginsburg, \textit{One Hundred and Two Years Later: The U.S. Joins the Berne Convention}, 13 Colum.-VLA J.L. & Arts 1 (1988) and \textit{Moral Rights — Practical Perspectives: A Roundtable Discussion On Factual Aspects of the Moral Rights of Integrity and Paternity}, 14 Colum.-VLA J.L. & Arts 25 (1989) (panel discussion).
\item \textsuperscript{196} For a general description of moral rights, see Roeder, \textit{The Doctrine of Moral Right: A Study in the Law of Artists, Authors and Creators}, 53 Harv. L. Rev. 554 (1940).
\item \textsuperscript{197} More specifically, moral rights typically include an author's right: "To have his name appear on copies of his work; To prevent the attribution to him of another person's work; To prevent the reproduction of his work in a distorted or degrading form." \textit{Register of Copyrights}, U.S. Copyright Office, House Comm. on Judiciary, 87th Cong., 1st Sess., Copyright Law Revision 4 (Tent. Draft) (Comm. Print 1961).
\item \textsuperscript{198} This does raise an interesting issue, however: if the hiring party is a joint author of a work, with assignments from all other joint authors, is the hiring party able to exercise moral rights in foreign countries? Interesting as this may be, perhaps only on an academic level, it does
addition, many foreign countries leave the definition of authorship to the country of the origin of the work. Consequently, achieving work for hire status in the United States can protect the rights of commissioning parties in foreign markets.

These markets have become increasingly important for software firms. For companies that must compete in the international market, the inability to secure work for hire status and thus become the statutory author entitled to moral rights hinders the practicability of employing independent contractors. Given the need for specialists, and the efficiencies gained by sometimes employing independent contractors, this potential loss of rights may hurt the competitive position of the industry.

In sum, the work for hire doctrine applied to the software industry fails to fulfill its primary goal: protecting the rights of creators. Yet creators in this industry do not appear to need the safeguard anyhow; aspects unique to software such as a relatively short market life dilute the problem of unequal bargaining power. Moreover, excluding software from the work for hire provisions places substantial burdens on the industry. Claims of joint ownership are likely to increase and a firm's ability to market software overseas is inhibited.

IV. AMENDING THE WORK FOR HIRE PROVISIONS

The software industry is unique, and deserves unique treatment under the work for hire provisions. Several commentators have argued for much more radical change, change that would exclude com-

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199. But see Geller, Copyright Protection in the Berne Union, 5 INTELLECTUAL PROP. J. 1, 16 (1989) (suggesting two alternative approaches to determining authorship: define "author" by the laws of the country in which protection is sought or define "author" according to some international standard that limits author status to the actual "flesh-and-blood" creators.).

200. The most recent data show that international sales are growing at twice the rate of domestic sales. North American PC Software Sales Increase 26%; International Sales Increase 50%; Word Processor Sales Up 88%; Education Software Sales Up 60%, 1990 BUS. WIRE, May 1, 1990, at 1; see also ALDUS CORP., ANNUAL REPORT TO STOCKHOLDERS 6 (1990) (noting the slowing of the U.S. market for software, and the fact that international sales accounted for over half the company's revenues); MICROSOFT CORP., ANNUAL REPORT TO STOCKHOLDERS 33 (1990) (International sales comprise 55% of total company revenues); MICROSOFT CORP., ANNUAL REPORT TO STOCKHOLDERS 12 (1989) ("For the past several years, International has been the fastest-growing part of our business . . . ").

201. Motion picture industry representatives voiced this concern during discussions of the 1976 Act. COPYRIGHT LAW REVISION PART 2, supra note 73, at 153-154 (comments of Adolph Schimel and Joseph Dubin, both of Universal Pictures Co., Inc.); see also id. at 359 (statement of Edward A. Sargoy, Motion Picture Association of America, Inc.).

202. These suggested revisions enter an already crowded field. Senator Thad Cochran (R-Miss.) has proposed numerous revisions, albeit more general and intended to protect authors, over the past several years. S. 2044, 97th Cong., 2d Sess. (1982); S. 2138, 98th Cong., 1st Sess. (1983); S. 2330, 99th Cong., 2d Sess. (1986); S. 1223, 100th Cong., 1st sess. (1987); S. 1253, 101st Cong., 1st Sess. (1989).
computer software from the realm of copyrightable subject matter altogether. A *sui generis* form of protection would be substituted.\textsuperscript{203}

The reasons for such a radical change are both numerous and compelling. Computer software itself differs significantly from other copyrightable subject matter. For example, much of the value of software comes from its utilitarian rather than its aesthetic aspects.\textsuperscript{204} Its utilitarian nature perhaps justifies a shorter term of protection. In addition, software is unique because its use is generally not self-disclosing. Put another way, the software user gains the desired benefits from the particular program without being exposed to the majority of the expressive elements of the work.\textsuperscript{205}

Conceding the persuasiveness of this call for a new form of protection, this Note nevertheless pursues its much less ambitious objective of modifying work for hire doctrine to account for some of the unique characteristics of the industry. This Note does not advocate modifying the general language of the work for hire provisions. Admittedly, a solution that allowed courts the flexibility to consider the unique aspects of this industry, and others, would be a more aesthetically pleasing solution than adding another industry exception.\textsuperscript{206} It might also reduce the need for future amendments to the statute. Yet there are several advantages to an industry specific approach. Recall the history of the doctrine. Broad, flexible provisions have proved unworkable; indeed, the 1976 Act may be viewed as a rejection of such an approach. Moreover, ever since the photography cases,\textsuperscript{207} industry specific treatment has been the norm. On a more practical level, an industry specific exception is much more politically feasible. It builds on existing law, with little effect on already established copyrights. And although it may not prevent the need to modify the statute at some future time, it may provide a model for such modifications to account for the unique characteristics of other industries. Given the broad reach of the copyright statute,\textsuperscript{208} industry exceptions may sim-

\begin{footnotesize}
\textsuperscript{203} Professor Pamela Samuelson has argued persuasively on this point, in several articles, including: *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 DUKE L.J. 663; and *Creating a New Kind of Intellectual Property: Applying the Lessons of the Chip Law to Computer Programs*, 70 MINN. L. REV. 471 (1985). For an example of others making similar arguments, see Petraske, *Copyright for Machines — An Oxymoron*, 65 J. PAT. OFF. SOCY. 410 (1983) (applying literary principles of copyright law to computer software will injure both litigants and the public).


\textsuperscript{205} Id. at 511 n.199.

\textsuperscript{206} Professor Toran makes a similar argument regarding procedural reform. Like copyright, procedure encompasses a vast subject matter, and as a result, the best procedural reforms may be those that reflect the unordered state of the world rather than those that are simple, and thus aesthetically pleasing. Toran, *Tis a Gift To Be Simple: Aesthetics and Procedural Reform*, 89 MICH. L. REV. 352 (1990).

\textsuperscript{207} See supra note 55.

\textsuperscript{208} See 17 U.S.C. § 102 (1988) (copyrighted works may include, among others, literary
Several competing considerations affect any attempt to change the work for hire doctrine. At a minimum it seems clear that software creators should be able to agree contractually to have their works characterized as work for hire. Including computer software in the list of potential work for hire set forth in section 101(2) would be the simplest way of achieving this result. Yet, absent an agreement to the contrary, the initial copyright would be presumed to vest in the creator. This presumption may not be the most effective means of furthering the fundamental goals of copyright law; by explicitly accounting for some of the particular characteristics of the software industry, a better result may be achieved.

Rather than presuming initial copyright ownership in the creator, the proposed approach considers which party — the creator or the hiring party — is in a better position to exploit the work. When the creator produces custom software, and the hiring party does not produce package software, the creator is likely better positioned to exploit the work. Conversely, when the hiring party's business is the creation and marketing of package software, that party will more likely be in a stronger position to exploit the work. Suggested statutory provisions implementing these changes are included in the Appendix.

This scheme can be justified on several grounds. Most important, it substantially reduces the problem of increased claims of joint ownership. When a signed writing designates the work as a work for hire, the problem is eliminated. Similarly, when the hiring party is the better exploiter, the work is presumed to be a work for hire and the creator is precluded from claiming joint ownership. This leaves the third case, in which the work is not presumed to be a work for hire, and the creator is presumed to be the holder of the initial copyright. Conceivably, the hiring party may claim joint authorship status and thereby hinder the creator's ability to exploit the work. The risk appears slight, however; unlike the case in which the creator attempts to claim joint authorship status, the hiring party would have a difficult time demonstrating a creative contribution to the project. In other words, the hiring party likely will be unable to show it contributed copyrightable expression to the work.

At the same time, the suggested approach furthers the public inter-

works, musical works, dramatic works, pantomimes, choreographic works, pictorial works, graphic works, sculptural works, motion pictures, audiovisual works, and sound recordings).

209. In fact, the statute is full of industry specific language. The most obvious example is the work for hire provisions, but other notable examples include: § 109 (effect of transfer of phonorecord), § 111 (cable transmissions), § 114 (scope of rights in sound recordings), § 116 (jukebox licensing), and § 117 (back-up copies of computer programs).

est in access to copyrighted works, by balancing considerations of ex ante incentives and ex post exploitation. Creators still may be compensated for their work. Before the work is undertaken, creators can bargain for the sale of their entire copyright interest in the work. In the absence of such a bargain, after the work is completed the copyright will normally vest in the party best able to make the work available to the public. This default vesting only occurs when the parties failed to complete a bargain for the copyright before the work was undertaken; presumably, creators willing to undertake work in these circumstances do not require the additional incentives provided by a copyright in the work.

Admittedly, the solution set forth here raises some potentially troubling issues. For instance, some unfortunate creators might work under the assumption that any copyright in the work will naturally vest in them rather than the hiring parties. One possible response is that this is a small concession to permit what is otherwise a substantial improvement over current law. Perhaps more comforting, though, is the thought that this situation should rarely arise. The revised provisions presume the hiring party to be the initial copyright holder when that party is in the business of producing and marketing software; commissioned creators in these circumstances normally expect that their work will be incorporated into the finished product. Put another way, they expect to transfer their copyright to the hiring party. Moreover, any presumption of lack of knowledge of copyright law may be appropriate in the context of artistic expression but seems much less so here. Although software developers may not know the finer contours of the law, they likely understand the importance of copyright law to protecting their work. The paradigm of the artist creating art for art's sake — and later learning of the need to protect the work — does not appear relevant here. Software developers are creating utilitarian products that in most cases will have well-defined markets.\textsuperscript{211} It seems reasonable to presume that creators of such commercial works will understand the importance of copyright law to the economic value of their work; the "hapless creator" may not exist in this market.

One further issue may arise with regard to the boundaries of the revised work for hire doctrine. For example, a creator may include as part of the commissioned work portions of work that she had created prior to beginning the work at issue. She may include a set of standardized subroutines that she has refined over time. If these subroutines are included as part of the work for hire, the creator could lose part of her ability to work. Under a system where work for hire may

\textsuperscript{211} Again, there may be exceptions. A "hacker," creating software merely for the pleasure of doing so, may develop a commercially viable program. Yet even here, it is hard to imagine how such a creator could unwittingly lose her copyright as a result of the revisions proposed here.
be presumed, this result is particularly troubling. Yet courts have consistently interpreted the work for hire provisions to allow a work for hire to include only those portions of the work undertaken once a creator is hired; this aspect is unchanged by the suggested amendments.212

CONCLUSION

Perhaps it was a mistake to include computer software in the realm of copyrightable material. Those who argue for a sui generis form of protection have much on their side. With the passage of time, however, the hope for such radical change must necessarily diminish. Consequently, it makes sense to try to adapt the statute to fit the industry.

Prior to the Supreme Court's decision in Reid, the boundaries of work for hire doctrine were murky; under some formulations, the doctrine was workable if not ideal for the software industry. The issue has now been clarified, and in a manner that virtually excludes commissioned software from potential work for hire status.

Although the Reid holding agrees with congressional intent, it is an unfortunate turn of events for the software industry. Incentives to create have been reduced. The risk of claims of joint authorship have increased, and the ability of firms to exploit works in foreign markets has been put in question. Reform is needed.

Given the characteristics of the industry, including the relatively balanced bargaining power of creators and commissioners, parties should have the freedom to contract for authorship rights. Combined with a set of presumptions that take into account the realities of the market place, this approach can alleviate the problems arising from Reid. Further, by making the revisions specific to the software indus-

212. Section 101(2) provides that a work may be a work for hire if it is a "work specially ordered or commissioned." This clause is important: as noted by negotiators in the legislative process underlying the current provisions, the clause limits the doctrine to works initiated as a result of a commission or order. In other words, a work completed then ordered could not be a work for hire. Register of Copyrights, U.S. Copyright Office, House Committee on Judiciary, 89th Cong., 1st Sess., COPYRIGHT LAW REVISION PART 5: 1964 REVISION BILL WITH DISCUSSION AND COMMENTS 145 (Comm. Print 1965) (comments of Barbara A. Ringer, Copyright Office). A more subtle issue concerns the potential loss of the creator's ability to exercise her particular style. If the copyright was broad enough to encompass not only the more expressive elements of the work, but also the creator's particular style of work, the creator could lose much or perhaps all of her ability to work in the field. As with the previous issues, this is particularly troubling when such a loss may come about by the operation of a presumption. This issue, however, is necessarily tied to the current dispute over the scope of copyright in computer software. See generally Lotus Dev. Corp. v. Paperback Software Intl., 740 F. Supp. 37 (1990); A. Clapes, SOFTWARE, COPYRIGHT, AND COMPETITION 195-207 (1989); Menell, Scope of Copyright Protection for Programs, 41 STAN. L. REV. 1047 (1990); Note, Idea, Process, or Protected Expression?: Determining the Scope of Copyright Protection of the Structure of Computer Programs, 88 MICH. L. REV. 866 (1990); Note, Defining the Scope of Copyright Protection for Computer Software, 38 STAN. L. REV. 497 (1986). Until that issue is resolved to some level of certainty, whether, and to what degree, this presents a problem remains indeterminate.
try, other industries remain unaffected; the hard-fought bargain attained in the 1976 Act is left virtually intact.

In the final analysis, the revisions proposed here simply restore one of the pervasive features of work for hire doctrine: recognition of the unique needs of a particular category of works. Recall, for example, the individualized treatment of the photography cases of the early 1900s. Similarly, the current provisions recognize the singular characteristics of the motion picture and other industries. If the computer software industry is to remain a part of the general copyright law, it too deserves recognition of its unique character.

**APPENDIX**

Suggested statutory language follows, with the revised language in italics:

A "work made for hire" is —

(1) a work prepared by an employee within the scope of his or her employment; or

(2) a work specially ordered or commissioned:

(a) for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire; or

(b) for use as part of a computer program, if

(i) the parties expressly agree in a written instrument that the work is a work made for hire; or

(ii) the parties have not expressly agreed in a written instrument that the commissioned party is to be the statutory author, and a substantial portion of the commissioning entity's business is directed toward

(a) marketing computer software, or

(b) otherwise making computer software available to the public.

— Matthew R. Harris