The following excerpt is taken from Volume 54, Number 61 of the Federal Register for Friday March 31, 1989 (pp. 13173-13177)

REGISTRATION OF CLAIMS TO COPYRIGHT DEPOSIT REQUIREMENTS FOR COMPUTER PROGRAMS CONTAINING TRADE SECRETS AND FOR COMPUTER SCREEN DISPLAYS

In order to evaluate and consider the issue of trade secrecy in relation to computer program deposits, the Copyright Office initiated a rulemaking proceeding by publishing a Notice of Inquiry in the Federal Register.
requesting public comments on the matter. (48 FR 22951). The Notice summarized the statutory framework of the deposit requirement and discussed the special deposit provisions for "secure text" and the nature of trade secret protection.

The Copyright Office received a total of 41 responses to the Notice of Inquiry. The vast majority of the responses were from members of the computer industry and the overwhelming sentiment was in favor of establishing special deposit procedures to mitigate the alleged uncertainties associated with depositing material containing trade secrets in a public office.

On the basis of the comments received, the Copyright Office concluded that the particular problems of the computer industry merited special deposit provisions. On September 30, 1986, the Copyright Office published a proposed regulation advancing four alternative deposits in the case of computer programs containing trade secrets. (51 FR 34687). Three of the alternatives were based on the three automatic grants of special relief described above. A fourth alternative, covering small computer programs of less than 25 pages, was also proposed. In addition, the Copyright Office proposed adding a provision requiring the disclosure in the copyright application of the number of lines in the program.

2. Summary of the Public Comments

The Copyright Office received six comments to its proposed regulation. Only four of the comments, however, addressed the changes in the deposit procedures concerning computer programs containing trade secrets. A summary of the four comments follows:

One computer equipment and software company opposed the requirement of indicating the number of lines in the program on the grounds that there is "no standard of measure across the software industry in the U.S. or worldwide that provides a uniform count of lines of source code..." Additionally, the company criticized the object code practice of the Copyright Office, and argued that the policy should be clarified in the regulations. Finally, the commentator stated that the regulations should be clarified regarding the continued availability of special relief for computer programs containing trade secrets.

Another computer equipment and software company also criticized the requirement of indicating the number of lines as ambiguous. In addition, this company pointed out that proposed § 202.20(c)(2)(vii)(A)(2) (concerning the four alternative deposits) was not made specifically applicable to revised computer programs.

The Information Industry Association (IIA) asked whether the use of diagonal stripping would be an acceptable means of blocking-out under the proposed regulation. The IIA voiced support for the stripping method because it could be conducted by clerical staff without supervision of expensive professional staff. In addition, the IIA requested that the regulation be clarified concerning continued availability of special relief.

One private practitioner recommended specifying source code in § 202.20(c)(2)(vii)(A)(1). In addition he generally favored the deposit of brief descriptions of any deleted material and specification of the lines deleted.

3. Summary of the Regulatory Decisions

In addition to consideration of the public comments, the Copyright Office reviewed the administrative experience with respect to computer programs. As a result of this consideration and review, the Copyright Office has made the following changes in the proposed regulations:

(1) The suggestion that source code be specified in § 202.20(c)(2)(vii)(A)(1) is adopted.
(2) The proposed requirement of indicating the number of lines in the program is not adopted.
(3) The four alternative deposits specified in § 202.20(c)(2)(vii)(A)(2) are clarified.
(4) The practice of accepting object code under the rule of doubt is made a part of the regulations.
(5) Source code stripped in a manner that virtually blocks out all computer code expression will not be an acceptable form of deposit. Sufficient copyrightable expression must remain unblocked to enable the Office to determine that registration should be made.

(6) Section 202.20(c)(2)(vii)(A)(2) has been clarified explicitly to cover revised computer programs.
(7) The continued availability of special relief for computer programs containing trade secrets is reaffirmed, but without any change in the special relief regulation.

4. Explanation of the Regulatory Decisions

(1) Specification of source code. The suggestion that § 202.20(c)(2)(vii)(A)(1) formally designate source code as a good one is adopted. By specifying source code, the regulation will more accurately reflect the long standing policy of the Copyright Office.
(2) Deletion of the requirement of indicating the number of lines in the program. Two computer equipment and software companies criticized the proposed requirement to specify the approximate number of lines in the program on the grounds that the proposal was ambiguous and that the information was often not readily available to the applicant. A random survey of deposits submitted to the Copyright Office confirmed the nonexistence of uniform numbering patterns. In light of the lack of uniformity concerning the numbering of lines, the Copyright Office has decided not to adopt this requirement.
(3) Clarification of the four alternatives specified in § 202.20(c)(2)(vii)(A)(2). Three of the four alternatives specified in proposed § 202.20(c)(2)(vii)(A)(2) were taken directly from Compendium II of the Copyright Office Practices. From the comments it appears some ambiguity exists as to when "blocking-out" is permissible. Specifically, the question was raised whether blocking-out is permissible only for trade secret material, or is it permissible systematically to block-out the entire program by diagonal stripping or other similar means. Also, in the case of programs in which executable computer code comprises less than 50% of the source code, it is permissible to block-out all of the executable computer code, leaving only scattered data, generic terms, and nonexecuting comments?

Under the practices of the Copyright Office, in the case of computer programs, blocking-out has been allowed with respect to the trade secret material. The Office has also made registration based on "stripped" computer code deposits.

In registering all copyright claims, the Copyright Office examines the deposit to determine the existence of copyrightable authorship. In the vast majority of cases involving computer programs, the presence of copyrightable computer code is apparent. In the unusual case, however, where all of the copyrightable elements have been blocked-out, and only noncopyrightable elements remain, no registration would be warranted on the basis of that deposit. This would be true even if the deposit met the 50% test, whereby the unblocked (but uncopyrightable) portion was greater than the blocked-out portion.

In order to address these concerns, the Copyright Office is clarifying the circumstances under which some portion of the code can be blocked-out. First, in the case of computer programs, we re-affirm that blocking-out is permitted only with respect to trade secret material. This has been the general practice of the Office, and we see no justification for blocking-out the

---

"company pointed out that proposed subsection 202.20(c)(2)(vii)(A)(2)

Two comments addressed possible changes in the "secure text" requirements.

 Error; line should read: "unusual case, however, where all of the"
code unless trade secrecy concerns override the public interest in disclosure of the material in which copyright is claimed. This rule applies irrespective of the form of blocking-out, whether entire words or phrases are blocked or the stripping method is used. Second, a requirement is added that the unblocked portions contain "an appreciable amount of original computer code." This requirement is intended to assure that the deposit of source or sufficient computer code to constitute recognizable copyright expression to justify registration under sections 102 and 410 of the Copyright Act. 6

(4) Specification of the object code practice in the regulations. There are typically two versions of a computer program, i.e., the source code and the object code. The source code is the version of the program written in computer language by the programmer. To be usable by the computer, however, the source code must be converted into binary form called object code. In general, object code cannot be read by humans without great difficulty, and then only by experts.

In developing copyright registration practices concerning computer programs, the Copyright Office took the position that the object code is the best representation of the authorship in the program. It can be more readily understood by the public, the courts, and copyright examiners. Accordingly, the Office requested that the deposit of "identifying portions" should consist of object code. Registration based solely on object code has been considered only under the "rule of doubt" and the claimant is cautioned accordingly.

The Notice of Inquiry, which started this rulemaking process, opened the object code practice for public comment. While many criticized the practice, there is an acknowledgment of the fact that examiners cannot determine the existence of copyrightable expression by examining identifying material consisting of object code alone. Most of those criticizing the practice cited the willingness of federal courts to recognize copyright protection in object code versions. The Copyright Office finds, however, that these cases are not precedents for reversing the object code policy. While the examiners have found that the copying of object code infringes the computer program copyright, they have done so primarily under registrations based on an examination of source code. Therefore, it is clear that the registration policy of the Copyright Office has not prevented copyright holders from securing protection for infringement of object code versions. Section 408 of title 17 clearly authorizes the Register of Copyrights to determine the nature of the deposit for registration. Decisions of the Copyright Office on this issue have not materially affected the rights of copyright holders in the object code versions of their computer programs.

To the extent registrations are made without full examination for copyrightable authorship, the burden is placed on the federal courts to make that determination without benefit of an administrative record. The case presumably would require more judicial scrutiny, and therefore the judicial process will take more time and expend more resources. The courts, in an adversary proceeding under the federal rules of discovery and evidence, are of course, better equipped than the Copyright Office to make decisions on the copyrightability of object code versions of computer programs. The Office's object code practice provides an avenue for that judicial examination. At the same time, the courts must know that a different kind of agency examination has been made.

In its publication of the proposed regulation, the Copyright Office announced the continuation of the object code policy. On reflection, the Copyright Office has decided to make the policy a part of the regulations. Litigation is clearly expanding in the area of computer software, and it is only prudent to minimize the chances for misunderstanding the Office position.

(5) Deposits of stripped source code. Stripping is essentially a means for covering up the creative expression in a computer program through diagonal or vertical stripes.

The Copyright Office will not accept source code stripped in a manner that virtually blocks out all copyrightable expression. This has been the general practice of the Office, and we now confirm and clarify this practice in the regulations. Enough copyrightable expression must remain visible to enable the Office to make a determination that the work is entitled to registration.

(6) Clarification of § 202.20(c)(2)(vi)(A)(2) to cover revisions. Section 202.20(c)(2)(vi)(A)(2) is amended specifically to cover revisions.

(7) Reaffirmation of continued availability of special relief. Virtually all of the comments were concerned about the continued availability of special relief in cases where the applicant believes the four alternatives are insufficient. The Copyright Office hopes to allay these concerns by reaffirming the continued availability of special relief in cases of computer programs containing trade secrets.

However, all applicants seeking special relief must be willing to deposit some source code revealing copyrightable expression if they want a certificate which has not been annotated in the manner of applications accompanied by object code or stripped source code deposits.

Most of the comments requested amendment of the regulations to make clear the continued availability of special relief. The Copyright Office declines to do this for two reasons. First, nothing in the present regulations restricts the seeking of special relief for computer programs containing trade secrets. Second, the inclusion of such a provision would imply that for many programs the present deposit requirements are unreasonable. The deposits actually received by the Copyright Office reveal this is not the case. The vast majority of the deposits for computer program registrations have consisted of the first and last 25 pages of source code. In the remaining cases, most have been able to utilize one of the automatic grants of special relief. The Office finds the deposit regulations are reasonable, and waivers of the regulations are necessary only in a relatively small number of cases.

5. Computer Screen Deposit Requirements

On June 10, 1988, the Copyright Office announced and published a policy decision with respect to registration of computer screen displays. (53 FR 21817) This policy decision was reached based on a thorough review of Copyright Office regulations and practices of the statute, of comments received at a public hearing on September 9-10, 1987 and of written comments. The Office confirmed the applicability to computer screen registration claims to existing regulations (37 CFR 202.3(b)(3) and (6)) establishing general registration policies. The Office determined that all copyrightable expression owned by the same claimant and embodied in a computer program, or first published as a unit with a computer program, including computer screen displays, is considered a single work and should be registered on a single application form.

With respect to deposit requirements, the Office gave general guidance and stated that the regulations would be amended at a later time. The Office now amends the deposit requirements for computer programs with respect to computer screen material. As stated in the June 10, 1988 policy decision, claimants have the option to include or omit on the registration application any specific reference to a claim to computer screen material if computer screen
Alternatively, if it is later determined by a court of competent jurisdiction that the Copyright Office is an "agency" subject to the Regulatory Flexibility Act, the Register of Copyrights has determined and hereby certifies that this regulation will have no significant impact on small businesses.

List of Subjects in 37 CFR Part 202
Copyright registration, Computer program.

Final Regulations
In consideration of the foregoing, Part 202 of 37 CFR, Chapter II is amended in the manner set forth below.

PART 202—[AMENDED]

1. The authority citation for Part 202 continues to read as follows:

Section 202.20 is amended by revising paragraph (c)(2)(vii) introductory text and (c)(2)(vii)(A), by redesignating (c)(2)(vii)(B) as (c)(2)(vii)(C), and by adding paragraphs (c)(2)(vii)(D) and (E) to read as follows:

§ 202.20 Deposit of copies and phonorecords for copyright registration.

(c) * * *

(E) Computer programs and databases embodied in machine-readable copies. In cases where a computer program, database, compilation, statistical compendium or the like, if unpublished is fixed, or if published is published only in the form of machine-readable copies (such as magnetic tape or disks, punched cards, semiconductor chip products, or the like) from which the work cannot ordinarily be perceived except with the aid of a machine or device, the deposit shall consist of:

(A) For published or unpublished computer programs, one copy of identifying portions of the program, reproduced in a form visually perceptible without the aid of a machine or device, either on paper or in microform. For these purposes, "identifying portions" shall mean one of the following:

(1) The first and last 25 pages or equivalent units of the source code if reproduced on paper, or at least the first and last 25 pages or equivalent units of the source code if reproduced in microform, together with the page or equivalent unit containing the copyright notice, if any. If the program is 50 pages or less, the required deposit will be the entire source code. In the case of revised versions of computer programs, if the revisions occur throughout the entire program, the deposit of the page containing the copyright notice and the first and last 25 pages of source code will suffice; if the revisions do not occur in the first and last 25 pages, the deposit should consist of the page containing the copyright notice and any 50 pages of source code representative of the revised material; or

(2) Where the program contains trade secrets, the page or equivalent unit containing the copyright notice, if any, plus one of the following: the first and last 25 pages or equivalent units of source code with portions of the source code containing trade secrets blocked-out, provided that the blocked-out portions are proportionately less than the material remaining, and the deposit reveals an appreciable amount of original computer code: or if the copyright claim is in a revision not contained in the first and last 25 pages, the deposit shall consist of either 20 pages of source code representative of the revised material with no blocked-out portions, or any 50 pages of source code representative of the revised material with portions of the source code containing trade secrets blocked-out, provided that the blocked-out portions are proportionately less than the material remaining, and the deposit reveals an appreciable amount of original computer code. Whatever method is used to block out trade secret material, at least an appreciable amount of original computer code must remain visible.

(B) Where registration of a program containing trade secrets is made on the basis of an object code deposit the Copyright Office will make registration under its rule of doubt and warn that no determination has been made concerning the existence of copyrightable authorship.

(C) Where the application to claim copyright in a computer program includes a specific claim in related computer screen displays, the deposit in addition to the identifying portions specified in paragraph (c)(2)(vii)(A) of this section, shall consist of:

(1) Visual reproductions of the copyrightable expression in the form of printouts, photographs, or drawings no smaller than 3x3 inches and no larger than 9x12 inches; or

---

* The Copyright Office was not subject to the Administrative Procedure Act before 1979. and is now subject to the provisions described by section 707(d) of the Copyright Act (i.e., "all actions taken by the Register of Copyrights under this title," except with respect to the making of copies of copyright deposits), (17 U.S.C. 707(b)). The Copyright Act does not make the Office an "agency" as defined in the Administrative Procedure Act. For example, personal actions taken by the Office are not subject to APA-FOIA requirements.
If the authorship in the work is predominantly audiovisual, a one-half inch VHS format videotape reproducing the copyrightable expression, except that printouts, photographs, or drawings no smaller than 3x3 inches and no larger than 9x12 inches must be deposited in lieu of videotape where the computer screen material simply constitutes a demonstration of the functioning of the computer program.


Ralph Oman,
Register of Copyrights.

Approved by:
Donald C. Curran,
Acting Librarian of Congress.

[FR Doc. 89-7716 Filed 3-31-89 8:45 am]