Debugging Software Escrow: Will It Work When You Need It?, 4 Computer L.J. 441 (1984)

Susan H. Nycum

Dexter L. Kenfield

Margaret A. Keenan

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DEBUGGING SOFTWARE ESCROW: WILL IT WORK WHEN YOU NEED IT?†

by SUSAN H. NYCUM*
DEXTER L. KENFIELD**
MARGARET A. KEENAN***

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* Ms. Nycum is a partner in the Boston law firm of Gaston Snow & Ely Bartlett and is resident in its Palo Alto, California office, where she specializes in the legal aspects of computers. She is co-principal investigator of SRI International's Studies of Computer Abuse for the National Science Foundation and the Department of Justice, and is past chairperson of the American Bar Association's Section of Science and Technology. Ms. Nycum is the co-author of YOUR COMPUTER AND THE LAW, is the author of a forthcoming book on protection of proprietary rights in software and of numerous articles in the computer law field, and has lectured extensively in the United States and internationally. Ms. Nycum received her J.D. degree from Duquesne Law School.

** Mr. Kenfield received his B.S. from the University of Vermont in 1977, and his J.D. from Harvard Law School in 1980. He is an associate in the Boston office of Gaston Snow & Ely Bartlett, where he specializes in litigation involving computers and other forms of technology.

*** Ms. Keenan received her B.A. from Boston University in 1975, and her J.D. from Tulane University in 1981. She is an associate in the Boston office of Gaston Snow & Ely Bartlett, where she specializes in bankruptcy law and litigation.

I. INTRODUCTION

It was March of 1982, and Vincent Moderski had a problem. As Manager of Technical Services for Sprague Electric Company in North Adams, Massachusetts, Mr. Moderski had spent several months in 1981 selecting a software package for use in the company's own system development efforts. Early work had gone well, and the package he had selected was nearing the production state when, without warning, the program stopped. Execution simply halted, and could not be restarted.

At first, Mr. Moderski was not overly concerned. The licensor was required by contract to maintain the software and keep it running. Previous problems had been resolved promptly. Furthermore, he knew Sprague was protected by a clause in the contract under which Sprague would receive the source code if the licensor went out of business. Mr. Moderski confidently picked up the telephone to call the engineering representative assigned to the Sprague account.

What made Mr. Moderski start to worry was that no one answered the phone. Finally, one of his calls was answered—by a janitor cleaning the building. The response was not encouraging: the licensor had gone out of business over two weeks before. There was no one who could fix the program.

The only remaining option was for Sprague to obtain the source code and debug the program itself. Then the really bad news came. The licensor, a Texas corporation, didn't have the source code. The licensor's parent, a Canadian corporation, didn't have the source code either. The source code was finally located—locked into service bureau computers. The service bureau would not furnish copies. Sprague Electric Company never got the source code.[1]

These real-life events represent the most dramatic context in which the concept of "software escrow" appears.[2] This concept can

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1. Eventually, another company took over maintenance of the software, and the bug which had cost Sprague five months of productive computer use, not to mention a financial cost which can never be precisely known, was fixed in less than a day.

2. As explained more fully *infra*, "escrow" is actually a misnomer. A properly structured transaction will not be a true escrow. The authors suggest use of the more accurate term "proprietary deposit"; in this Article, the more familiar and convenient escrow language will be used. It should be noted that in the factual situation described above, a primitive form of escrow was attempted: source code was to be delivered to Sprague upon the bankruptcy of its vendor. The attempt failed, however,

be loosely defined as the placing of materials relating to computer software (typically source code and documentation) in the hands of an independent party, to be held securely and confidentially, subject to some specified contingency, upon the occurrence of which the materials are to be delivered to one or more predesignated parties.

The authors have observed in their practice a substantial number of comparable situations, in which parties to software transactions have naively negotiated escrow terms that were likely to fail at the very moment they were needed. The legal and practical reasons for this are complex, and have not been explored in depth. No cases have yet dealt with these problems, and the legal rules which create the most serious obstacles to the success of software escrows were adopted with quite different situations in mind.

In an effort to raise the level of understanding of both bench and bar, as well as to point the way to possible solutions to the problems facing software escrow transactions, this Article will discuss the practical need for escrow arrangements, the variety of contexts in which they appear, and the legal obstacles which may prevent their success. Finally, possible approaches will be suggested to surmount these obstacles.

II. THE NEED FOR SOFTWARE ESCROW

The need for some form of software escrow arises from practical business requirements, as well as from certain bodies of law. The various needs can be loosely grouped into the following categories.

A. SECURE ARCHIVAL STORAGE

In some situations, a computer user may desire to maintain, as a matter of historical record, copies of computer data or software at an off-site location. For instance, a software development house may wish to maintain for archival purposes a copy of the key development stages of a particular product, such as each market release, for its own future reference. A second example would be a company that must satisfy government record-keeping requirements and chooses to do so by placing the appropriate data tapes, together with software or documentation that might be required for its retrieval, in secure storage. In addition, a possible new application has recently appeared. In connection with a Copyright Office inquiry concerning the copyright registration and deposit of works containing

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because at the time the contract provision was to go into effect, conditions beyond the control of either party prevented it from operating. Even if the licensor had possessed the source code, the legal considerations discussed in this Article might have prevented Sprague from actually obtaining it.

trade secrets,[3] it was suggested that the necessary deposit could be accomplished by placing a copy of the work with an escrow agent under appropriate access terms.

Transactions intended solely to satisfy a requirement for secure archival storage are likely to be straightforward, two-party transactions, free of most of the difficulties discussed in this Article. Typically, the storage of source code listings alone will be sufficient to satisfy the intended purpose. The authors, however, share a suspicion that transactions which are initially thought to serve only a limited purpose often serve quite different purposes in the end.[4] Accordingly, they urge that every arrangement for the escrow or storage of software be considered in view of the problems discussed in this Article.

B. BACK-UP STORAGE

In addition to archival storage, it is a fundamental requirement, except for the most primitive data processing facilities, that reliable and secure back-up copies of all data and software in active use be maintained. Some computer users go so far as to maintain fully redundant computer installations at separate sites. Far more common is the traditional practice of daily and weekly "dumps" to magnetic tapes of all data and programs stored on disk. The tapes typically are stored in a nearby room in the same facility. The reliability of this practice can be questioned: it is unlikely that a natural disaster which destroys the computer room will leave the adjacent room untouched. Risk-sensitive users frequently use remote sites for back-up storage. Increasingly, however, independent contractors are being used to perform this task under a form of escrow arrangement.

Since the purpose of this form of storage is to enable prompt resumption of operations in the event of a major disruption (indeed, a common term for the procedure is "disaster recovery"), the materials stored are different from those stored in the archive context. For

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3. A copyright must be registered with the Copyright Office of the Library of Congress prior to the filing of an action for infringement. 17 U.S.C. § 411 (1982). Registration ordinarily requires the deposit of at least one complete copy of the work. *Id.* § 408. Registration deposits are maintained in publicly available files, posing the threat of disclosure to the public of any trade secrets contained in the deposit. The Copyright Office inquiry into possible ways of facilitating registration while preserving the confidentiality of trade secrets was initiated by a comprehensive Notice of Inquiry. 48 Fed. Reg. 22,951 (1983).

4. For example, a new software house may establish a simple, two-party archival escrow arrangement for its own purposes. Later, after its customer base has grown, it may wish to use the same escrow arrangement to meet its customer's needs. Although fully adequate for the first purpose, the arrangement may fail to accomplish the second.

back-up purposes, there must be a complete, up-to-date copy of all necessary software and data. Often, a set of object code modules is stored, ready for immediate loading into either the primary or a back-up machine. Technical documentation sufficient to bring up and execute the software must also be included in a full disaster recovery arrangement, in case the primary operating personnel are unavailable. All of this implies a much more active and technical role for the escrow agent, who must handle frequent updates and must provide assistance with reloading the software on a moment's notice.

The use of third parties for back-up storage is a wrinkle that may not have been anticipated by the draftsmen of current software license agreements. These agreements typically authorize the licensee to make and maintain archive and back-up copies, and, in the absence of a contractual provision, the right to make such copies is granted to at least some software users by the 1980 amendments to section 117 of the Copyright Act.[5]

The use of a third-party escrow agent by a licensee to safeguard an authorized archival or back-up copy may arguably constitute "disclosure," typically barred by license agreements, or (if the escrow agent maintains its own computer facilities) it may constitute "use" on an unauthorized machine.[6] Both licensors and licensees should consider whether or not the use of a third-party escrow agent by a licensee is adequately dealt with in present license agreements.

C. PROPRIETARY PROTECTION

This is the primary role of software escrow, and because most of

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5. These amendments, sometimes referred to in the literature as the "Computer Software Copyright Act of 1980," were in fact enacted as a minor part of "an Act to amend the patent and trademark laws." Act of December 12, 1980, Pub. L. 96-517, 94 Stat. 3015 (1980). Under revised § 117, an "owner of a copy" is permitted as a matter of copyright law to make archival and back-up copies, as well as certain modifications, with some restrictions. 17 U.S.C. § 117 (1982). It is doubtful that § 117 will be of significant import to escrow transactions. Such transactions will most often relate to licensees who are not provided source code, while the defense offered by § 117 is most likely to be asserted by a licensee who *was* provided source code, and allegedly misused it.

6. In one pending case in which one of the authors is involved, a licensee who, immediately upon receipt of the licensed product, transported a copy of it to an unauthorized computer (on which it could not be executed due to language incompatibilities) attempted to justify its actions on the ground that the unauthorized computer was merely the storage medium utilized for a permitted back-up copy. The trial judge found this to be "use" on the second computer, sufficient to justify termination of the license. This, however, was an interlocutory ruling, and it is not yet known whether or not it will survive trial.

the legal difficulties pertain to this role, it will be the focus of the
remainder of this Article. The vital need for this type of escrow ar-
rangement is illustrated by the experience of Sprague Electric
Company.

Proprietary protection escrow is a method of meeting the funda-
mentally inconsistent requirements of the parties to a software li-
cense. Licensors typically claim that source code contains trade
secrets, and therefore they are reluctant to disclose the source code,
even to licensees. Some software houses take the position that
source code is "unpublished" as a matter of copyright law, and are
therefore unwilling to distribute it.[7] Regardless of the legal status of
source code, most licensors are also reluctant to distribute it for the
practical reason that duplication and modification of source code are
relatively easy and inexpensive. Moreover, such actions are difficult
or impossible to detect and prove. Accordingly, as a practical mat-
ter, the best way (although by no means foolproof) to prevent unau-
thorized use or duplication of software is to decline to distribute
source code.

Licensees, however, have a very different set of concerns. Rec-
ognizing the truism that no program of more than trivial sophistica-
tion can be guaranteed to be completely free of bugs, licensees are
primarily concerned that any bugs which do appear be remedied
promptly, that is, that the software be properly maintained. Regard-
less of the present reputation and past performance of the licensor,
a licensee must consider the possibility that the licensor will go out
of business, through bankruptcy or otherwise, or will fail to main-
tain the software for some other reason. Many licensees also have
legitimate requirements for modifying standard software packages,
either to "tweak" them to meet the licensee's particular require-

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7. Some take this position, notwithstanding that they consider object code for
the same software to be "published" and in fact freely distribute it (sometimes even
by outright sale). The relationship under copyright law between source and object
code is unclear. Courts have upheld copyright in source code supported by registra-
tion deposit of object code, one such court referring to object code as "the decryption
of the source code." GCA Corp. v. Chance, 217 U.S.P.Q. (BNA) 718 (N.D. Cal. 1982).
At least one court has apparently viewed object code as not protectible by copyright.
Apple Computer, Inc. v. Franklin Computer Corp., 545 F. Supp. 812 (E.D. Pa. 1982),
rev'd and remanded, 714 F.2d 1240 (3d Cir. 1983). Another court has squarely dis-
agreed. Apple Computer, Inc. v. Formula Int'l, Inc., 562 F. Supp. 775 (C.D. Cal. 1983).
Although one could plausibly claim that object code is a "derivative work" (a term
defined in 17 U.S.C. § 101 (1982) to include translations and transformations) based
upon the corresponding source code, and thus a separate work for copyright pur-
poses, no court seems to have adopted that view.

ments, or to adapt the package to the licensee's machine.[8] Finally, some licensees have a legitimate need to know functional details of the software. For example, a drug manufacturer using a complex statistical package in compiling research data and certifying the results to agencies of the federal government must have intimate knowledge of how those results are calculated. These legitimate needs can be met only by making the source code, and perhaps additional documentation, available to the licensee.

Proprietary protection escrow offers a way of reconciling the conflicting needs of the parties.[9] Stripped to its basics, the arrangement is simple. At the time of execution of a license agreement, the source code, and perhaps additional technical documentation, is deposited with an independent third party. Under certain conditions specified in the agreement, the third party is to deliver the deposited materials to the licensee. Ignoring the legal boilerplate, the specified conditions typically reduce to two: the licensor goes bankrupt or otherwise ceases to do business, or the licensor fails to maintain the software properly.

Transactions of this sort are becoming increasingly common, and some attorneys are routinely agreeing to serve as "escrow agent" in these situations. The legitimacy of the concept is beginning to be established by the participation of major banks, not only as licensees, but also as secure depositories. In addition, a new industry is being created, as companies are established for the specific purpose of performing software escrow services.

Despite the increasing frequency of software escrow transactions, the legal aspects of these arrangements often have not been carefully thought out. As in the Sprague Electric Company situation, many naive transactions are doomed to fail at the very moment that they are to become effective. In addition, attorneys and others who innocently agree to serve as escrow agents run substantial risks, not only of lengthy and difficult litigation, but also of significant liabilities. The remainder of this Article will address these issues.

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8. The frequent need to make modifications for this purpose is also recognized in the 1980 amendments to § 117 of the Copyright Act of 1976. *See supra* note 5.

9. Software escrow can also serve other purposes. For example, a new software house may be able to enhance its credibility and reputation by announcing that each market release of its products will be routinely deposited with a reputable escrow agent. Obviously, these goals can be accomplished only if the escrow arrangement can be relied upon to function properly.

III. GENERAL PROBLEMS WHICH MUST BE SOLVED

This section discusses a number of legal and practical problems which must be solved if an escrow arrangement is to accomplish its goals. While some of these problems are straightforward and may be easily dealt with by careful drafting, others go to the heart of the relationship between the parties, and must be considered at the earliest stages of structuring an escrow transaction. A further set of special problems created by bankruptcy law will be discussed in a subsequent section.

One question which should be obvious, but is frequently glossed over, is precisely what materials are to be deposited. Many escrow agreements simply provide for the deposit of a copy of the "source code and documentation." In view of the goals of the licensee, the protection afforded by such a deposit may be entirely illusory. The documentation deposited may be nothing more than a copy of documentation which the licensee already has. Furthermore, the premise on which this vague requirement is based, that the source code itself will provide adequate information to debug and subsequently maintain the software, is questionable. The standards of software houses vary greatly with respect to such matters as comprehensibility and internal documentation of source code; therefore the practical utility of source code alone should not be overestimated. This is especially true where portions of the software are written in assembly language or a proprietary language, and where the software is part of a comprehensive package of programs, in which interrelationships between the various parts of the package may not be readily apparent from the source code.

One solution to this problem is to have the escrow agent independently determine that the documentation deposited, whether internal or external to the source code, is on its face adequate to allow debugging and maintenance of the software. This of course requires much greater technical expertise on the part of the escrow agent than would be the case with a mere storage arrangement. It also implies a greater degree of disclosure to a third party of trade secrets and other confidential information, which may make licensors reluctant to agree to such provisions. Notwithstanding these legitimate concerns of the licensor, the purposes of the entire escrow arrangement can be served only if the licensee can be assured that the materials deposited will be adequate to permit debugging and maintenance of the software.

A related problem is the practical difficulty of ensuring that the licensor deposits what it has contracted to deposit. A sophisticated escrow agent can respond to this issue by offering "verification"

services, perhaps as an option in addition to a basic storage service. The escrow agent will verify by examining all deposits and assuring that on their face they appear to contain the required materials, but will not perform a detailed technical examination of the substantive contents. This service may be particularly important when the deposit is to include subsequent versions of a licensed product; verification of subsequent deposits may be the only effective way to be certain that revisions and enhancements have been deposited.

A second category of drafting problems involves the conditions under which the escrow agent is to release the deposit to the licensee. One of the most common triggering conditions is that the licensor has declared bankruptcy or otherwise ceased to do business in the ordinary course. As noted below, bankruptcy law may make such a provision unenforceable.[10] Accordingly, licensees should be certain that additional language is included, which will become effective if the licensor ceases to do business, but will be more certain to be enforceable. The parties should also consider whether the condition should be so broadly drafted as to require delivery even if the licensor continues to do business under the reorganization provisions of chapter 11 of the Bankruptcy Code. A licensor operating under those provisions is likely to be more capable of maintaining the software than either the licensee or a third party.

Another triggering event frequently included in software escrow arrangements can be termed "failure of support." The notion is simple: if the licensor fails to carry out its duty to maintain the software in functional condition, the escrow deposit is to be delivered to the licensee, who can either take over the maintenance job or contract with an outside party for maintenance.[11] Careful consideration should be given to the drafting of such a clause. An example of the possible pitfalls can be found in the present General Services Administration requirements applicable to certain government ac-

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10. *See infra* note 23 and accompanying text. However, to the extent that such clauses are enforceable, licensees should consider whether notice to them of the occurrence of such an event should be required in order to provide effective protection. Absent a notice provision, the licensee may not discover, until it is in desperate need of maintenance services, that its licensor has gone out of business. This is precisely what happened to Sprague Electric Company. On the other hand, a licensor who fails to meet maintenance responsibilities may be no more likely to comply with notice requirements.

11. Obviously, such a condition will not be included where the licensor has no maintenance duty under the terms of the license. If an escrow agreement contains as its only delivery condition a bankruptcy provision that is unenforceable under bankruptcy law (*see infra* notes 22-24 and accompanying text), then the benefit to the licensee of the agreement is entirely illusory.

quisitions of general purpose software.[12] Source code and maintenance documentation is to be deposited with a custodian, who is to deliver the material to the government "if the contractor becomes unable to, or otherwise fails to maintain the software adequately." The term "adequately" is nowhere defined; however, another provision requires that bugs discovered in the software be remedied within two days after notification to the vendor. Taking the two provisions together, it is at least arguable that delivery must be made if even a minor bug survives more than two days after discovery. It is likely that this result is neither intended nor desirable. A delivery condition worded this broadly is an open invitation to disputes and possible litigation.

The nature of litigation which might result from the alleged occurrence of delivery conditions also poses serious problems.[13] Computer litigation is, on the whole, extraordinarily complex and difficult to manage. There are likely to be a large number of documents, including large numbers of source code printouts which may or may not vary in major or minor respects, and which attorneys, judges and juries are generally incapable of understanding. The practical nature of an escrow transaction dictates that, if a licensee is to obtain any meaningful relief in the form of delivery to him of the deposited material, such relief must be obtained promptly, most likely by means of a temporary restraining order or preliminary injunction. However, complex cases involving large numbers of technical documents are particularly unsuited to prompt relief. This is especially true where, as here, the relief sought would, as a practical matter, dispose of the entire action.

For these reasons, it may be advisable to include extrajudicial remedies in the escrow agreement. The most obvious such remedy is arbitration, but the usual arbitration procedures, including the procedures set forth in the American Arbitration Association rules, are excessively complex and time consuming for this purpose. What is needed is a remedy that can be completed, from submission to decision, in a matter of days. A viable solution appears to be a highly truncated "mini-arbitration," limited to the issue of whether or not a delivery condition has occurred. The only possible outcome of the process would be delivery or nondelivery. It seems preferable

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12. Solicitation Document for Fiscal Year 1983, FSC Group 70, Part 1, § A. A GSA source has described the document as indicating terms the Government would like to obtain in software contracts, but would not make strict requirements.

13. This discussion is general in nature, and applies to litigation in virtually any court. Further problems may result from the fact (discussed *infra*) that all litigation concerning the escrow arrangement may be required to occur in the bankruptcy court.

that the procedure be self-executing, so that it cannot be thwarted by the failure or refusal of one party to cooperate.

All of the usual problems of arbitration clauses must of course be considered, including their possible invalidity under the laws of certain states. A possible solution to this difficulty, at least with respect to interstate transactions, is the use in federal courts of the federal arbitration statute,[14] which generally requires federal courts to enforce arbitration agreements in contracts involving interstate commerce. The greatest danger to the effectiveness of an arbitration clause of the type suggested is that a party opposed to arbitration will seek an injunction against arbitration in a state court. This should be defeated by removal of the case to federal court[15] and by application of the federal statute.[16]

The preceding issues are primarily issues which can be dealt with through careful drafting of the agreements under which an escrow transaction is to occur. Another set of problems involves more substantive issues; they may also be ameliorated through careful drafting, but may not be entirely avoided, as the problems may be inherent in the nature of the transaction.

Many of these problems revolve around the use of the term "escrow." This term is most familiar to both attorneys and laypersons from everyday real estate transactions, in which an attorney or broker holds deposited funds or documents in escrow pending consummation of the transaction. The terms of such an arrangement are well known, as are the circumstances under which the escrow agent may be liable to one or both of the parties. It is ordinarily of little consequence whose "agent" the escrow agent is considered to be.

In the software context, however, it may make a great deal of difference. If the escrow agent is considered to be agent of the licen-

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14. 9 U.S.C. §§ 1-14 (1982). This statute is in most respects similar to the UNIFORM ARBITRATION ACT (1955), adopted in 25 states.

15. Removal may not be possible if the suit is in state court in the defendant's home state. Each party to an escrow transaction should be certain that any arbitration clause included is enforceable in each state of which it may be considered a resident for purposes of federal jurisdiction.

16. A more difficult problem is posed if the litigation is in bankruptcy court. The Bankruptcy Rules provide that, upon stipulation of the parties, the court may authorize arbitration. *See* former Bankruptcy Rule 919, 2 BANKR. L. REP. (CCH) ¶ 20,349; new Bankruptcy Rule 9019, 11 U.S.C.A. § 9019 (1984). (The new rules become effective Aug. 1, 1983, and are applicable to proceedings under Title 11 pending on Aug. 1, 1983.) This language is clearly inconsistent with the unconditional, mandatory language of the arbitration statute. Query whether the general statute or a rule adopted under the more specifically applicable bankruptcy statute should govern? *Compare In re* Braniff Airways, Inc., 33 Bankr. 33 (Bankr. N.D. Tex. 1983) (bankruptcy statute overrides general arbitration statute) *with In re* Hart Ski Mfg. Co., 711 F.2d 845 (8th Cir. 1983).

see, then a plausible argument can be made that delivery to the escrow agent constitutes delivery to the licensee (or worse yet, delivery to all potential licensees). This arguably would constitute disclosure of trade secrets, resulting in forfeiture of any protection, and also might constitute "publication" under copyright law, with a variety of possible adverse consequences. Although the authors are persuaded that, as a general rule, these arguments should not prevail, the mere assertion of a plausible argument in proprietary rights cases can greatly influence the likelihood of obtaining preliminary injunctive relief. As a practical matter, the grant or denial of such relief in a proprietary rights case is frequently fatal to the position of one of the parties.

Conversely, it can be equally damaging for the escrow agent to be considered the agent of the licensor. Under section 101(10) of the Bankruptcy Code, one who serves as the agent of the debtor and in that capacity has possession or custody of property belonging to the debtor may be deemed a "custodian," creating a special set of responsibilities and liabilities to the debtor.[17] As will be seen, bankruptcy law imposes a number of other duties and liabilities, the net effect of which may be to make it legally impossible for the escrow agent to deliver the deposited materials to the licensee, or to subject him to substantial liability should he do so.

It is largely for these reasons that the escrow arrangement should not be a true escrow at all. The "agent" should be a legally independent party, bound by contract to each of the other parties, but the agent of neither. A possible incidental benefit is the reduction of the risk of vicarious liability of either the licensor or the licensee based on acts of the escrow company, although in some situations comparable liability may exist directly on the basis of contract.

Escrow agents should also be aware of the broad scope of their potential liability. Simple delivery of the deposited materials to the licensee pursuant to the contract could in some circumstances subject the escrow agent to liability for damages and even for contempt of court. Delivery by the escrow agent on the basis of a reasonable, good faith belief that delivery conditions had occurred might never-

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17. The statute defines "custodian" in part as a "trustee, receiver or agent under applicable law, or under a contract, that is authorized to take charge of property of the debtor for the purpose of enforcing a lien . . . or . . . general administration of such property for the benefit of the debtor's creditors." 11 U.S.C. § 101(10) (1982). It is not clear that an escrow agent necessarily falls within this definition. However, Flournoy v. City Fin., 679 F.2d 821 (11th Cir. 1982), defined an "agent" simply as one who acts on another's behalf and subject to his control. Under this definition, an escrow agent may well be considered a "custodian."

theless constitute conversion, and under any other circumstances might well constitute other torts, as well as breach of contract. Furthermore, delivery could make the escrow agent liable for misappropriation of trade secrets, and any subsequent misuse of the information by the licensee might render the escrow agent jointly liable. Delivery could also constitute copyright infringement, especially if, as is often the case, the delivery process involves the making of one or more copies of the deposit by the escrow agent.[18] Subsequent misuse by the licensee might also subject the escrow agent to vicarious liability as a contributory infringer.

Nondelivery could also expose the escrow agent to liability. The grounds for recovery by the licensee are most likely to be routine claims of breach of contract or negligence in carrying out an assumed duty. However, damages might be staggering. The basic purpose of the entire transaction, known to all parties, will often be to protect the licensee against the possibility of total destruction of its business. Accordingly, both on familiar tort principles of proximate cause and under the traditional contract rule of *Hadley v. Baxendale*,[19] the escrow agent might be liable for enormous damages in the event that a refusal to deliver is later adjudged to have been wrongful. The tremendous scope of potential liability of the escrow agent[20] is a compelling argument for including in the contract the broadest possible indemnification by both licensor and licensee. It is also a compelling argument in favor of the sort of mini-arbitration described above, which the contract should clearly provide is to be final and binding on all parties.

IV. SPECIAL PROBLEMS POSED BY BANKRUPTCY LAW

An entirely new set of problems is posed by various provisions of bankruptcy law.[21] The impact of bankruptcy law is crucial to the success of software escrow transactions. The entire purpose of the transaction is to have certain consequences follow from the happen-

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18. Under many current escrow agreements, the licensor deposits a single copy of the source code; upon the occurrence of the specified conditions, the escrow agent is to make copies for delivery to each of the possibly numerous licensees. If a court subsequently determines delivery to have been improper, the escrow agent is guilty of copyright infringement (assuming a valid copyright exists). 17 U.S.C. §§ 106, 501 (1982).

19. 156 Eng. Rep. 145 (1854).

20. There may also be other types of liability arising from unexpected sources. For example, California has enacted a comprehensive regulatory scheme applicable to a broadly-defined class of "escrow agents." CAL. FIN. CODE §§ 17,000-17,654 (West 1981 & Supp. 1983). The scheme involves mandatory licensing, bonding requirements, and possible criminal sanctions for violations.

21. All statutory citations in this section are to Title 11 of the United States Code.

ing of specified events, one of which is the licensor filing for bankruptcy or otherwise ceasing to do business in the ordinary course. Unfortunately, at the moment that most presently-existing escrow arrangements are to go into action, provisions of the Bankruptcy Code may prevent them from becoming effective.

Underlying this discussion is the elementary concept that, upon the commencement of a bankruptcy case, an "estate" is created containing the debtor's property. Under section 541, the debtor's estate includes "all legal or equitable interests of the debtor in property as of the commencement of the case," with certain exceptions not relevant here. So long as the licensor continues to hold legal title and other licensor rights (e.g., confidentiality and return of materials on expiration of license) to the deposited materials, as it ordinarily will,[22] the materials may constitute property of the estate. An attempt to avoid this by shifting title out of the licensor upon the commencement of the case or based upon the licensor's insolvency is specifically barred by section 541(c)(1). This section blocks any contract term "that is conditioned on the insolvency or financial condition of the debtor, on the commencement of a case under this title, or on the appointment of or the taking possession by a trustee . . . or a custodian, and that effects . . . a forfeiture, modification, or termination of the debtor's interest in property."[23] Accordingly, unless

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22. The insistence of licensors that they retain title would seem to block an approach sometimes suggested, the use of a trust. Creation of a valid trust would require that legal title be transferred. *See* 1 A. SCOTT, SCOTT ON TRUSTS § 32.2 (3d ed. 1967 & Supp. 1983). Some have suggested use of a type of "inchoate trust," which would become fully effective only upon occurrence of one of the specified delivery conditions. Scott indicates that "[w]here consideration is paid for a conveyance in trust, and the conveyance is ineffective to transfer the title to the property to the trustee, a court of equity will compel the transferor to complete the conveyance." *Id.* at 270. However, this rule is clearly *not* intended to apply where title was not meant to pass, and an attempt to make title pass upon bankruptcy runs headlong into strong contrary policies of the Bankruptcy Act, expressed *inter alia* in 11 U.S.C. § 541 (1982). Furthermore, it is by no means clear that a trust approach would avoid the other problems discussed here; in some instances, incorporation of legal rules relating to trustees may make matters worse.

23. 11 U.S.C. § 541(c)(1)(B) (1982). This is one of several provisions of the Bankruptcy Code intended to prohibit enforcement of so-called "ipso facto" clauses in contracts. The statute now prohibits the enforcement of contractual provisions that relate to (1) the insolvency or financial condition of the debtor; (2) the commencement of a case under the Bankruptcy Code; or (3) the appointment of or taking possession by a trustee in a bankruptcy case or a custodian. While the latter two clauses are specific, the first clause is extremely broad, arguably barring *any* covenant or condition relating to the party's financial condition (e.g., working capital requirements). However, careful drafting might produce contractual clauses that do not fall within the proscription, yet will achieve the desired result: release of the deposit to the licensee.

the transaction can be structured in such a way that title passes other than upon an event described in section 541(c)(1), the deposited material may be property of the estate. *In re Carla Charcoal, Inc.* [24] held that escrowed funds are property of the estate, and it is likely that the same result will be reached with respect to escrowed software.

One result immediately follows from the characterization of escrowed material as "property of the estate," and influences heavily the possible resolution of disputes. Under the 1978 Bankruptcy Code, the federal bankruptcy courts were given jurisdiction not only over all property of the estate, but also over all issues and cases which affect or concern the property of the estate.[25] Thus, under the statute as written, such issues as whether or not there has been a failure to maintain the software, and whether or not the parties must comply with arbitration provisions, may be determined by a federal bankruptcy court. It was this broad extension of the jurisdiction of the bankruptcy courts which the United States Supreme Court held unconstitutional in *Northern Pipeline Construction Co. v. Marathon Pipe Line Co.* [26]

On an interim basis, the bankruptcy courts have been operating under temporary rules which essentially retain the current system, but provide that decisions by bankruptcy judges are subject to review by United States District Court judges.[27] Since, by the time this Article appears in print, either Congress or the courts may have acted to clear up the confusion and uncertainty resulting from the *Northern Pipeline* decision, the problem will not be explored further here. It should be noted that the *Carla Charcoal* court specifically ruled that the bankruptcy court had exclusive jurisdiction over disputes involving escrowed property; it is not known whether or not this decision will survive *Northern Pipeline*.

A second issue which immediately arises from the characterization of the escrowed material as property of the estate involves one of the provisions inserted into the Bankruptcy Code to protect the debtor pending judicial resolution of the case. Under section 362,

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24. 14 Bankr. 644 (Bankr. W.D. La. 1981).

25. 28 U.S.C. § 1471(a)-(c) (1982).

26. 458 U.S. 50 (1982). It should be noted that the true meaning of this decision is unknown. The only clear holding is that exercise by the bankruptcy courts as presently constituted of the full scope of jurisdiction granted under the 1978 statute is unconstitutional.

27. The constitutionality of the Emergency Rules has been challenged, but thus far has been generally upheld. *See In re* Seven Springs Apartment, Phase III, 11 BANKR. CT. DEC. (CRR) 170 (N.D. Ga. 1983); *but see In re* South Portland Shipyard, 31 Bankr. 770 (Bankr. D. Me. 1983).

the commencement of a bankruptcy case "operates as a stay, applicable to all entities, of . . . any act to obtain possession of property of the estate or of property from the estate," including a wide range of specifically enumerated acts. Violation of the automatic stay provision may be punished as contempt of court; lack of knowledge of the pendency of the proceeding is *not* a defense.[28] Assuming that the escrowed materials constitute property of the estate, it would appear at first blush that any act taken to obtain delivery of the escrowed material would violate the automatic stay. Indeed, *In re Heckler Land Development Corp.*[29] held that a legal action brought to compel an escrow agent to turn over funds escrowed to secure performance under a land development contract was barred by the automatic stay.

The automatic stay is not necessarily fatal to the licensee's right to the deposited materials; it simply means that the licensee must request permission from the bankruptcy court to have the material delivered.[30] Section 362 allows the bankruptcy court to grant relief from the stay for cause, including the lack of adequate protection[31] of an interest of the party seeking relief in property of the debtor. The statute places the burden of proof on the issue of adequate protection on the party opposing the relief, typically the debtor or trustee. If the bankruptcy court does not act on a party's request for relief from the stay within thirty days, the stay is automatically lifted as to that party; generally, however, the court will act within that period if the debtor's interest in the property is significant.

Moreover, the bankruptcy court is likely to view its primary role as that of protecting the interests of the debtor. This is particularly so in a reorganization case under chapter 11. The primary purpose of such a proceeding is to protect the debtor from adverse actions of creditors until a new financial structure can be arranged under which the debtor can continue operations. The court in such circumstances may be very reluctant to allow any action which would

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28. *See, e.g.*, Borg-Warner Acceptance Corp. v. Hall, 685 F.2d 1306 (11th Cir. 1982); *In re* Wariner, 16 Bankr. 216 (Bankr. N.D. Texas 1981).

29. 15 Bankr. 856 (Bankr. E.D. Pa. 1981).

30. Under former Bankruptcy Rule 701, a party seeking relief from the automatic stay was required to commence an "adversary proceeding" (in essence a civil action against the debtor). 2 BANKR. L. REP. (CCH) ¶ 20,201. Under new Rule 4001, a party seeking such relief need only file a motion, as described in new Rule 9014. Rule 4001 also permits ex parte relief under certain conditions. *Id.* at ¶ 21,151. *See supra* note 16 (applicability of new rules).

31. The concept of "adequate protection," more fully described in 11 U.S.C. § 361 (1982), will not be discussed here, except to note that the "interests" in property which must be adequately protected may not include the rather unusual "interest" of a licensee in escrowed source code.

compromise the value of the debtor's property; the release of source code for a major product would in all probability tend to do so. Even if the licensee does obtain relief from the stay, the delay and expense involved are precisely what the entire escrow transaction was intended to avoid.

A possible solution to this problem is to model the escrow transaction after a type of transaction which bankruptcy courts routinely allow to be consummated, even though arguably involving property of the estate. One such model is the letter of credit. In a letter of credit transaction, a bank issues a letter of credit to a beneficiary at the request of a customer. The letter represents an obligation of the bank to pay specified amounts to the beneficiary upon the occurrence of specified contingencies. Although upon the bankruptcy of the customer the automatic stay would prevent any action against it to recover the debt, the beneficiary is generally allowed by bankruptcy courts to move against the bank to obtain payment under the letter of credit.[32] Although *In re Twist Cap, Inc.*[33] held to the contrary, this view has not been followed by other courts. A comparable result may be obtained in software escrow transactions, especially if the transaction involves separate agreements between the escrow agent and each of the other parties, wherein the obligation of the escrow company to the licensee becomes fixed and unconditional upon the occurrence of the specified delivery conditions.

The analogy is not precise. The basic rationale of the letter of credit cases is that the beneficiary is seeking to obtain property of the *bank*, not of the customer. This rationale cannot be carried over directly to the software situation, because the licensor will insist on retaining legal title. (Recall that an attempt to shift title out of the licensor upon bankruptcy is blocked by section 541.) However, if the transaction can be structured to separate the relationships between escrow agent-licensor and escrow agent-licensee sufficiently, and to make clear that the licensor has long since parted with all possessory rights to the deposited materials, then it may be possible to persuade the bankruptcy court that the importance of delivery, in

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32. *In re* Page, 18 Bankr. 713 (D.D.C. 1982).

33. 1 Bankr. 284 (Bankr. M.D. Fla. 1979). *Twist Cap* has not been well received; *see* Chaitman & Sovern, *Enjoining Payment on a Letter of Credit in Bankruptcy: A Tempest in a Twist Cap*, 38 BUS. LAW. 21 (1978). *In re* Leisure Dynamics, Inc., 33 Bankr. 171 (Bankr. D. Minn. 1983) followed *Page* without citing *Twist Cap*, while *In re* L.B.G. Properties, Inc., 33 Bankr. 196 (Bankr. S.D. Fla. 1983) reached the same result, citing only Chaitman & Sovern. *See also In re* Joe DeLisi Fruit Co., 11 Bankr. 694 (Bankr. D. Minn. 1981) (holding that the automatic stay bars administrative proceedings to determine whether or not creditors may recover on a letter of credit filed pursuant to the administrative scheme).

terms of carrying out the intentions of the parties and avoiding irreparable harm to the licensee, is such that delivery should be allowed.[34] Furthermore, if the duty to deliver the deposited materials arises from a contract to which the licensor is not a party, then the jurisdiction of the bankruptcy court to consider the matter is open to dispute.

Other difficulties posed by bankruptcy law involve the numerous and wide-ranging powers given by the statute to a bankruptcy trustee.[35] The trustee may be authorized to continue operating the business of the debtor, especially in a reorganization case under chapter 11. For this purpose, he is specifically authorized by section 363 to use, sell, or lease property of the estate in the ordinary course of business, without any prior notice to other parties. In addition, the trustee is authorized by the same section to use, sell, or lease property of the estate other than in the ordinary course of business, although notice and hearing are then required. The trustee will ordinarily use this power in liquidating or winding up the debtor's affairs, or in transferring some or all of the debtor's assets to a purchaser. It should be noted that under some circumstances, the trustee can sell assets of the debtor free and clear of all liens, contracts, and other claims, even where the purchaser has actual notice of those claims.[36] In the software context, it is fair to assume that the trustee would at least attempt to find a purchaser who would assume the maintenance obligations of the original licensor, but it can-

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34. It is the view of the authors that under the circumstances described, delivery should ordinarily be allowed. However, given the natural inclination of many bankruptcy judges, as well as the frequent difficulty of rapidly educating lay persons to the significance of source code, delivery may not in fact be allowed. It may be appropriate to consider whether or not amendments should be made to the Bankruptcy Code to allow for the carrying out of escrow transactions, at least where the conditions in the escrow relate to objective events other than the commencement of a bankruptcy proceeding. However, given present political realities, it is unlikely that such an amendment would be promptly enacted. Accordingly, present efforts should be focused on structuring escrow transactions to maximize the likelihood of their success under the present statute.

35. It is not necessary that a trustee be appointed. Indeed, the debtor itself is generally allowed to remain in possession. A "debtor in possession" holds the same powers as a trustee, and the term "trustee" is used here to include both.

36. *See, e.g., In re* Samoset Assocs., 654 F.2d 247 (1st Cir. 1981). Generally, a bankruptcy court will allow a sale free and clear of all interests in the property only if (1) non-bankruptcy law would permit the sale free and clear of the interests, (2) the interested entity consents, (3) the interest is a lien and the purchase price is greater than the amount of the lien, (4) the interest is in bona fide dispute, or (5) the interested entity could be compelled in a legal or equitable proceeding to accept money in lieu of such interest. Whether or not the "interest" of a licensee in escrowed software is an "interest" for this purpose could be disputed. *See also supra* note 31 and accompanying text.

not be assumed that such a purchaser could always be found. The bankruptcy court has broad discretion in approving the terms of sale of some or all of the debtor's assets, and there can be no guarantee that a licensee will be adequately protected.[37]

The trustee is given additional powers in order to facilitate his basic role of rehabilitating or liquidating the debtor. Under section 365(a), he is authorized either to assume or to reject, subject to the court's approval, "any executory contract or unexpired lease of the debtor." The term "executory contract" is not defined in the statute, but its meaning has been explored in the literature, including an influential pair of articles by Professor Countryman.[38] In general, the phrase includes any contract under which both parties have remaining duties of performance and the failure to perform would result in substantial breach of the contract and excuse the other party's subsequent performance. Contracts in which only one side has such duties might also be considered "executory," although Professor Countryman's view is to the contrary.[39]

Under section 365, it would seem that software license agreements could be rejected by the trustee as executory contracts. Licensees generally have a number of obligations requiring future performance, including non-disclosure and return of licensed materials upon termination. A licensor's continuing maintenance obligation clearly makes the contract executory, and at least one case under the former Bankruptcy Act indicated that a warranty pertaining to the software would be sufficient to make the contract executory.[40]

If a trustee terminates all license agreements, then a licensee cannot legitimately complain about the non-delivery of escrowed materials. The trustee is unlikely to reject routinely a license agreement that carries with it the likelihood of future payments to the

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37. In the Sprague Electric Company story, after several months the software was acquired, and the licensor's maintenance obligations were assumed, by a Canadian corporation. One of the effects of this transfer was to change the relationship from one governed by Texas law to one potentially governed by Canadian law. In addition, the purchaser initiated its new role with sharp price increases.

38. Countryman, *Executory Contracts in Bankruptcy: Part I*, 57 MINN. L. REV. 439 (1973); Countryman, *Executory Contracts in Bankruptcy: Part II*, 58 MINN. L. REV. 479 (1974).

39. *See infra* notes 43-44 and accompanying text.

40. *In re* Select-A-Seat Corp., 625 F.2d 290, 292 (9th Cir. 1980). *In re* Richmond Metal Finishers, Inc., 11 BANKR. CT. DEC. (CRR) 166 (Bankr. E.D. Va. 1983), held a technology license agreement executory and approved its rejection. The licensee had a duty to make further royalty payments. The licensor was obligated to notify the licensee of any challenge to its patent rights and to defend and indemnify the licensee against infringement claims, although apparently no patent had yet been issued.

trustee. However, the escrow agent will almost certainly not be making any payment to the trustee, and the trustee is likely to believe that terminating the escrow arrangement and reclaiming the escrowed materials are in the interest of the debtor, and will maximize the possible revenue from sale of the software. The question thus arises whether or not the escrow arrangement is a separate, executory contract which may be rejected by the trustee even if the license agreements are affirmed.[41]

Where the licensor is required by his agreement with the escrow agent to deposit updates and enhancements to the software, the contract is clearly executory as to him. The escrow company would probably have its own set of duties running to the licensor, including nondisclosure and return of materials upon expiration of the arrangement. If the escrow company is an "agent," it also has all of the legal duties running from agent to principal. If, as they frequently are, the escrow arrangements are made as part of a single three-party contract, then it will be even easier to find executory duties running among the parties. An even worse arrangement would be to combine the escrow arrangement with the license itself; since the license agreement is clearly executory, it may be rejected by the trustee. This causes the escrow arrangement to fall with the license, and the licensee will be left with only an unsecured general claim for damages, which is not entitled to priority on distribution. Any resulting loss of revenue from the licensee would be simply one factor which the trustee would have to balance in determining whether or not to reject the license in order to avoid the escrow arrangement. It should be noted that *In re Richmond Metal Finishers, Inc.*[42] specifically allowed the rejection of a license for the purpose of relicensing the same technology to others on more favorable terms.

The problem of possible rejection by the trustee can be minimized by eliminating to the extent possible executory aspects of the escrow contract. As a preliminary step, the arrangement should not be combined with a license agreement, nor should there be a single three-party agreement. Instead, separate agreements should be

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41. It should be noted that the power of the trustee to affirm license agreements is not automatic. If there has been a default in the debtor's obligations other than as a result of the bankruptcy itself, such as a failure to perform maintenance, the trustee may affirm only if he cures the default and gives "adequate assurance" that he will perform in the future. 11 U.S.C. § 365(b) (1982). In addition, under some circumstances, a licensee may be entitled to reject performance by a trustee. *Id.* § 365(e)(2). However, a trustee will frequently have available to him the personnel and facilities of the debtor, and in many situations the continuing performance of the trustee or debtor in possession may be indistinguishable from the performance prior to the bankruptcy.

42. 11 BANKR. CT. DEC. (CRR) 166 (Bankr. E.D. Va. 1983).

used between each combination of parties. Continuing obligations between escrow agent and licensor should be reduced whenever possible. One way to do this is to make the agreement relate solely to a single deposit of materials. Once that deposit is made, the licensor has performed fully and the agreement is no longer executory as to him. There should be no warranties running to the escrow agent; all product warranties should run directly to the licensee under a separate agreement. Future deposits of enhancements or updates should be dealt with under separate agreements, each agreement also being performed entirely upon deposit.

It will probably be impossible to eliminate all of the escrow agent's future duties to the licensor, such as nondisclosure and return or destruction of materials upon expiration. There is some authority for the view that when only one party to the contract has executory duties, the contract is "executory" and subject to rejection.[43] However, the better view, and that expressed by Professor Countryman, is that "executory contracts" as used in section 365 does not include contracts that have been fully performed by one party.[44] This view is exemplified by *In re Rovine Corp.*, which discusses the problem extensively with respect to franchise agreements, and concludes that such agreements are executory by analogy to patent license agreements.[45] Accordingly, if the escrow arrangement can be structured so that the licensor has performed fully upon deposit of the materials, then it is likely that the arrangement will not be subject to rejection by the trustee as an executory contract. If, however, the escrow transaction is linked with the license, or the licensor has continuing duties to make further deposits, then it is likely that the escrow arrangement will be subject to rejection.

Still another problem remains. Under section 542, one who is "in possession, custody, or control . . . of property that the trustee may use, sell, or lease under section 363" is required to deliver such property to the trustee or account for its value.[46] If escrowed materials continue to be property of the estate, then they may be within the trustee's powers under section 363 and arguably must be returned, apparently regardless of whether or not the trustee has the power to reject the escrow arrangement. There is an exclusion from this provision in section 542(c), under which one who "has neither

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43. *See, e.g., In re* American Magnesium Co., 488 F.2d 147 (5th Cir. 1974) ("Both the rule in Texas and in the majority of other jurisdictions is that a contract is executory when something remains to be done by one or more of the parties.").

44. *See, e.g., In re* Rovine Corp., 6 Bankr. 661 (Bankr. W.D. Tenn. 1980).

45. *Id.*

46. 11 U.S.C. § 542 (1982).

actual notice nor actual knowledge of the commencement of the case" may transfer what would otherwise be property of the estate to an entity other than the trustee, provided it is done in good faith.[47] In order to keep open the possibility of applying this section, it is probably wise to require that a licensee who seeks delivery need only notify the escrow agent that a delivery condition has occurred. The licensor, if it wishes, may then give the escrow agent notice that a bankruptcy proceeding has commenced.

Of course, one must be aware of the long-standing principle that one who has studiously avoided learning of a situation cannot be held to have acted in good faith in ignorance of the situation. The escrow agent cannot bury its head in the sand; however, the agent should not be held to have any duty to seek out knowledge not immediately available.

The situation is eased if the delivery conditions do not include the mere occurrence of a bankruptcy, as elsewhere suggested. If the only defined delivery condition is failure of support, then notice to the escrow agent that failure of support has occurred should allow the agent to act in good faith. Prompt action will be especially important. The debtor or trustee will, as a matter of course, notify all parties with whom it has contractual relationships of the filing of a bankruptcy petition. Once such notice has been received, the protection of section 542(c) ends.

V. CONCLUSION

Software escrow, by whatever name and in whatever fashion implemented, is clearly a concept whose time has come. Properly executed, it provides a satisfactory means of reconciling many of the inherently conflicting goals of the parties to computer software transactions. The same concept, in simpler form, provides a convenient and effective solution to business needs of computer software developers and users. The question is not whether or not software escrow will be used, but rather on what terms the courts will allow it to succeed. This Article has explored a number of aspects of pres-

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47. If the escrow agent is deemed to be a custodian (*see supra* note 17 and accompanying text), then the agent's conduct is governed instead by 11 U.S.C. § 543 (1982). This § flatly prohibits a custodian of property of the debtor from taking any action regarding the property, and also requires the custodian to deliver the property to the trustee and file an accounting. Unlike § 542, § 543 does not include a good faith exception. Constructive or implied knowledge of the existence of the proceeding may be sufficient to trigger this section. This result follows by negative implication, as § 542 specifically requires "actual knowledge." A custodian found to have had knowledge of the proceedings when he delivered the property will be held liable for its value, and could be held in contempt.

ent law that present difficult and perhaps insurmountable obstacles to the effectiveness of software escrow as presently structured by all but the most sophisticated parties. However, this Article has also suggested a number of approaches that will avoid or ameliorate many of these problems. The task remaining for the computer industry and the bar is to pursue these avenues creatively, and to persuade the courts in the inevitable litigation to come that the reasonable expectations and business requirements of software developers and computer users deserve judicial respect and recognition.