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# CONTRACTUAL, FINANCIAL, AND TAX ISSUES IN MAJOR PROCUREMENTS

*G.F. Adam, Mark L. Gordon, Steven B. Starr*

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I. INTRODUCTION

Procurements of large scale comprehensive data processing products require large scale, comprehensive planning and implementation to maximize benefits and minimize risks to all involved. If many small companies have been ruined because of a relatively small computer installation on which heavy dependence was placed, so too can large corporations be exposed to disaster at the hands of an unsophisticated acquisition of a major computer system. Of course, the reason this happens to larger entities less frequently (or maybe less visibly) is that the larger companies usually have the money, personnel, and presumably the sophistication to prevent such catastrophes. Nevertheless, the way in which these resources are brought to bear will determine the level of protection against calamitous failure.

A comprehensive approach to all the various combinations of large scale computer systems involving networking, multiple vendors, software development, multiple site installations, and financing would be, in the space and time allowed, counterproductive at best. The topics covered in these materials have been chosen in a selective manner and the approaches to these topics have been narrowed to provide an easy framework for reference. By using a fictional case study with a detailed set of facts, the authors hope that an in-depth analysis of certain high level priorities generated by the planning and implementation of the data processing products described in the case study will aid vendors, users, and their counsel in understanding the most effective ways of approaching any large scale procurement of computer products and services.

II. DESCRIPTION OF THE CASE

A. COMPANY DESCRIPTION

The hypothetical company is an international marketer of consumer products and services to six industries. The diverse product mix includes foods, beverages and spirits, and specialty restaurants. The company's two major businesses are its food products and beverage operations. The growth of the company has been rapid because of both internal expansion and acquisitions. During the last three years, two acquisitions were made to broaden and strengthen its food products line. The number of food products manufactured and marketed by the company increased from thirty-two to ninety-five, and the number of operations increased from twelve to thirty.

In 1982, revenues exceeded $1.3 billion and are expected to increase twelve percent in 1983. The company employs 25,000 people
MAJOR PROCUREMENTS

worldwide. In each of its markets, the company holds a market leader position. However, it has been increasingly difficult each year to achieve growth objectives because of intense competition and a relatively lackluster market. The senior management team recognizes that the company's continued growth and market leadership depend on successful longer term planning and the establishment of a future strategic direction. An important challenge facing the senior management team was the development of a strategic plan that optimized potential synergies and operating efficiencies resulting from the recent acquisitions. In support of the new business plans, a major reorganization and decentralization effort was announced.

B. THE BUSINESS MISSION

The new business plans were devised to support and satisfy corporate strategies that included (i) improving asset management programs with particular emphasis on controlling and reducing inventories; and (ii) increasing effective use of information processing and services in those areas having the greatest impact on the company's operating performance.

Prior to the acquisitions, the company was organized into a centrally managed entity with ten operating divisions that were grouped into four strategic business units. The intent of the reorganization was to place the company in a position to take advantage of growth opportunities through more efficient and productive operations.

The tradition of the company had been to manage all technology centrally. However, senior management recognized that the information processing capability was a key strategic resource that had to be managed within a framework that best supported the company's organizational structure. The company's information processing facilities consisted of a centralized data center that maintained a large development staff. Most of the divisions had very similar information processing needs which could be met most cost effectively through the sharing of a single facility.

Currently, the corporate data center operates a sophisticated computer system and maintains a centralized staff of data processing professionals. Plans are being made to acquire a larger mainframe because of the need for additional processing capacity. Information Services (IS) was centralized several years ago when most of the divisions in the Beverage and Spirits Group simultaneously needed to upgrade their information processing capability. It was clear at the time that a single data center was the best way to
deliver information services to the entire group. Now, after the reorganization and the formation of two products groups that are new to the company, there were major questions about how best to provide information services to the organization.

Given the new plans calling for support of more decentralized operating business units, the Vice President of Information Services hired a major consulting firm to assist with the development of an IS plan that best supported the corporation's new organizational infrastructure.

C. THE MANAGEMENT CONSULTING STUDY: RECOMMENDATIONS

The consulting firm hired was quite familiar with the issues facing the company. They had a long-standing relationship with the company that began five years ago when they assisted with the development and implementation of the plan to centralize the organization's information processing facilities and services. Since that time, they have assisted the department with various projects for many of the divisions.

The consulting firm's study concluded that centralized information processing should be maintained to perform data processing functions for the business units with the exception of the Foods Group. This was the only group remote to the corporate headquarters and several of its divisions. The operations of the Foods Group increased substantially with the two recent acquisitions. The consolidation of their operations would require a major upgrade to the existing computing capabilities of the acquired companies to support the information needs of the new Foods Group.

The consulting firm made the following recommendations to the Information Services organization:

1. Corporate Information Services

Corporate Information Services should continue to have responsibility for providing the total spectrum of data processing services required by the company. This should include the planning and approval of computer hardware acquisitions, the operation of the company computer centers, and all system development and related activities.

2. Regional Data Center

The company should establish a Regional Data Center with responsibility for providing data processing services to the Foods Group. Primary functional areas within the regional data center would be: (i) System Development, responsible for detailed system
design and development, (ii) Technical Services, responsible for the planning and installation of hardware and operating software, for maintenance of system software at the regional center, and for support of telecommunications hardware and software; and (iii) Data Center Operations, responsible for the operations of the regional data center, including control and operation of data communication equipment.

The regional data center would report directly to Corporate Information Services.

These recommendations were presented to the company’s senior managers and accepted.

D. IMPLEMENTATION

The implementation of the plan represented a major undertaking by the company and was organized into several phases. The first phase called for the acquisition and installation of a mainframe computer in the new center. Several years ago, the company established a standardized policy for computer hardware installed within the corporation. The corporate technical services group, in conjunction with the corporate finance and legal departments, were responsible for negotiating the purchase, rental or lease arrangements with computer vendors or leasing companies. This group also negotiated the maintenance agreements for the hardware and operating system software. Historically, all major data processing equipment was leased under operating leases rather than purchased. This policy was also applied in the acquisition of the mainframe for the data center. It represented the optimal financial arrangement and protected the company from technological obsolescence.

The inventory control replenishment system, developed in-house eight years ago, was the major system needing substantial modification or replacement. The consultant’s analysis revealed that the current inventory control and distribution system did not perform the necessary functions to support the Foods Group. Better management of company assets, particularly inventories, was a key objective of senior management.

An inventory control and distribution package marketed by a major software company was chosen to replace the current system. It is the most widely used software in the foods industry. However, to satisfy all of the functional requirements, major enhancements to the package had to be made. The estimated cost for the modifications was $1.2 million. The package is designed to maintain a full range of inventory and distribution related information. Online data entry and inquiry capabilities are available to facilitate access to the
corporate data. The three modules, Inventory Control, Purchasing, and Usage, are integrated and provide perpetual inventory management, analysis of optimized stock levels, purchase order status, invoicing, and analysis of usage and cost.

The software is to be acquired under a perpetual licensing agreement. In addition to providing education, training, documentation, and installation support, the software maintenance agreement best met the company's current and long-term needs. Although the company had no prior business relationship with this firm, their reputation in the industry is excellent. Enhancement and installation of the package, including all system interfaces, are expected to be completed in twelve months ending June, 1984.

The Foods Group is supported by thirty operating locations, dispersed throughout the United States and Europe. They include operating divisions, manufacturing plants, warehouses, distribution centers, and sales and administrative offices.

Electronic communication between the domestic locations and the regional data center will be made via personal computers (PC's) that can be converted to emulate intelligent terminals. This configuration allows for remote location access to databases residing on the mainframe in the regional center. Fifty PC's will be installed in the domestic facilities of the Foods Group. The hardware configuration for each facility consists of a personal computer, a dot matrix printer, and a disk drive with a capacity of ten megabytes.

The PC's will be purchased directly from the manufacturer because of the volume discounts offered the company as a large national account. Application software will allow users to perform sales and financial planning analyses interactively. A particular sales and financial planning software package was chosen because of its compatibility with the personal computer and its wide acceptance as the industry standard for spreadsheet analysis. This software for the PC's will be purchased through a major software distributor at a volume discount. The choice to use microcomputers configured to look like intelligent terminals and the availability of software which allows easy access to data on the mainframe led to a decision to acquire a data base management system (DBMS) for the mainframe. An integrated DBMS, developed by a software vendor known primarily for its comprehensive line of database management products, was chosen. The modules of the DBMS package chosen for installation include (i) a data dictionary system, (ii) online query capabilities, (iii) an application development system, (iv) a report writer, and (v) text-editing capabilities.

The vendor's license agreement offers the company installation
support, training and education, software upgrades, documentation, and ongoing support services.

A final issue was the selection and implementation of the network to link the computer equipment in the various locations. The network allows users, geographically remote to the data center, to access, process, and transmit information to and from the regional data center. A privately owned public data network, providing service to over 200 cities throughout the United States, was chosen as the common carrier for telecommunication services. Corporate technical services decided on the telecommunications equipment, the communication protocols, the number of lines needed, and line transmission speeds.

E. Summary

A major challenge to the Information Services department in implementing this plan is the presence of multiple vendors and the requirement to integrate different technologies and systems. However, with effective coordination and management of user and vendor activities and commitments, successful and timely installation can be accomplished.
III. STRUCTURING AND NEGOTIATING THE CONTRACTUAL DOCUMENTS—THE FINER POINTS

Any analysis of the structuring and negotiating of contractual documents in this case must begin with an overview of the various parties who will be involved in all present and future aspects of the acquisition. An initial list of such parties includes:

1. the consulting firm,
2. the manufacturer of the mainframe host facility computer configuration,
3. the software company for inventory and distribution package,
4. the manufacturer of personal computers and related peripherals,
5. the maintenance provider for personal computers,
6. the software distributor for personal computer application software,
7. the telecommunication services company,
8. the leasing company for mainframe acquisition, and
9. the employees of the user and the vendors.

For most of these parties, one or more contracts will be needed. In this complex and lengthy implementation, one of the most crucial planning problems, and one which must be planned for early (perhaps even influencing the selection of vendors), is the coordination of responsibility among all the vendors. Where responsibilities overlap, or where problems in assessing fault for performance delays can be anticipated, it is essential that the contracts be structured to deal with such situations in order to achieve maximum efficiency in the implementation process.

There are various ways to cope with this problem. One way which may be more suitable for less complex situations is to require one of the vendors to be responsible for overseeing or monitoring compliance with the contractual obligations of all vendors. The “lead” vendor will then be responsible for notifying the user of any problems or delays arising in the implementation, and if it fails to do so, it will be liable for increased costs to the user. Of course, if the user contracts only with one vendor, and the vendor “subcontracts” with other vendors, the coordination problem rests with the first vendor and the user is relieved of resolving difficult “finger-pointing” problems.

On the other hand, where no vendor will accept either of these alternatives, it will be the user who must carefully draft documents coordinating various implementation stages, and, more importantly, setting up a framework to head off disputes among vendors and to
state responsibility for damages caused by one or more vendors. One element that should be contained in all contracts with vendors is the concept of periodic status meetings. "Project managers" should be appointed for all parties and periodic meetings should be held among the project managers to discuss the progress of the implementation. Whether all of these status meetings will include the project managers for all vendors should be determined once an implementation plan has been formulated and the interrelationship of vendor responsibilities can be defined.1

One effective aid in an installation of this scope and magnitude is a "master implementation schedule" which should, to the extent feasible, provide target dates and completion schedules for all facets and vendors involved in the implementation. While it is highly doubtful that a vendor will legally commit itself to such a schedule, the advantage is that, in a practical way, all vendors have an understanding of the importance of their obligations within the total implementation. The disadvantage is that once one or more vendors experience delays, the master implementation schedule becomes less and less meaningful (unless it is continuously updated—but even then, at some point, it loses its value compared with the effort involved in revising it). Each contract should clearly provide that at any of the status meetings a project manager must indicate any problems or delays occurring since the previous meeting. If he fails to do so, that vendor will be deemed to have waived any objections it may have had to meeting its obligations. In the event a vendor does announce a problem or delay caused by another vendor and if there is a dispute regarding fault, each affected vendor should be required to provide a written statement that it has not defaulted in any of its obligations and that it did not cause the delay or problem. In the event that it is later discovered that a vendor who was at fault denied responsibility, liquidated damages should be payable to the user, who could use them to offset additional costs caused by the particular problem. Certain cautions should be observed in structuring liquidated damage provisions to insure their validity and their impact on other available remedies. In particular, a user must be cognizant of the possibility that by inserting a liquidated damages clause, the user will have "elected a remedy" to the exclusion of others. Such action may not be advantageous.

Another typical contractual provision that could be changed to alleviate the user's risk is the provision which usually excludes "consequential damages." Without discussing definitional problems

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1. See infra exh. A (example of contractual "status meeting" provisions used for a major acquisition).
surrounding consequential damages, each vendor involved in a multiple vendor situation should be liable for damages (which may be "consequential") suffered by the user and other vendors due to a deficiency in performance by that vendor. Most vendors will of course reject the idea of consequential damages, but the user, particularly in the context of multiple vendors, may want to insist on consequential damages and compromise by providing a limit on the possible amount of such damages.

One last contractual resort may be appropriate, and while it is not limited in usefulness to the multiple vendor situation, it is particularly comforting there. This is the force majeure clause. While such a provision typically provides that a vendor, and perhaps the user as well, is not liable for unforeseen delays for which it is not at fault, additional language may be added to allow the user, and perhaps a vendor also, to terminate its contractual obligations after a certain period. In this way, if one vendor experiences a delay due to force majeure, and that vendor's performance is critical to other vendors' performance, the user can terminate the agreement with that vendor and hopefully acquire substitute performance by another vendor, limiting the effects of the force majeure on the entire implementation.

In addition, standard procedure in drafting contracts with multiple vendors should include specific language which "rolls forward" or extends target dates for performance completion in the event of an unforeseen delay, including delays caused by other vendors. Such extensions should be only for a period of time equal to the delay.

Obviously, implementation with multiple vendors requires detailed planning, cooperation, and in-depth contractual integration of vendor responsibilities and liabilities. With this in mind, an analysis of the finer points in individual contractual documents with the vendors involved in the case study follows.

A. THE CONSULTING FIRM CONTRACT

The case study company (CSC) will surely want to have a written contract with the consulting firm. The contract should detail the scope of services to be rendered. These services would include studying the company's structure and background and management goals affecting the development of an Information Services plan, studying the existing Information Services structure, and making specific recommendations to assist management in its goals in this area. The contract should also contain a list of "deliverables" or documentation from which CSC can go forward in implementing its
plans and also evaluate the consulting firm’s performance of its contractual obligations.

Consulting services contracts are perhaps the most difficult type of contract to document accurately and confidently, since it is difficult to articulate concrete goals in the initial stages of a project. In fact, adequately defining goals, and the means to achieve them, is often the consulting firm’s very objective. For this reason most consulting services arrangements are structured with hourly billing and not a fixed fee. Hourly billing puts the user company in a precarious position, since it is practically impossible to define the amount of time required in a project like CSC’s. In an hourly fee arrangement, the user’s contractual protection against excessive costs is to provide for contract termination rights when costs are obviously outstripping results. This choice usually leaves the user with an unfinished and unsatisfactory product.

In view of the problems with hourly fees, every attempt should be made to convert the consulting contract into a fixed fee arrangement (by which term is included the concept of estimates with cost over-run ceilings). If necessary, hourly billing may be used in the initial evaluation phase until enough information is available to determine a fixed fee. Even with a fixed fee arrangement, the user company should have early termination rights, with payment in such case being made on a pro-rata or even hourly basis.

In a project the size of CSC’s periodic status meetings should be required under the contract, and a timetable for delivery of documentation should be set forth. The contents of the documentation should be delineated as fully as possible in the contract.

Many user companies contracting with a consulting firm insist on contractual rights to approve or reject individuals performing the services for the consulting firm to limit the consulting firm’s right to substitute and replace individual consultants. Such an approval/rejection right must be drafted to limit the consulting firm’s ability to argue that the exercise of those rights by the user caused unacceptable results to that user.

Other provisions which should find a place in the consulting services contract include the following: (i) provisions for holding back a percentage of any fees due the consulting firm until final conclusion of the services to be performed or termination by the user; (ii) adequate warranties of expertise with the subject matter and a covenant that such expertise will continue for the duration of the contract; (iii) provisions for ownership rights to any proprietary information which may be generated during the contract; and
(iv) provisions for protecting confidential information acquired by the consulting company.

One document that, in a procurement like CSC's, is likely to be present, is the Request for Proposal (RFP). The RFP may be put together by the consulting firm, the user (which may be a possibility in this case, given CSC's own extensive staff of data processing professionals) or by both. An in-depth analysis of the detailed structure which should be present in an RFP is beyond the scope of this Article. However, some broad statement of the nature and purpose of the RFP may be helpful.

In this case, it may be possible to structure one RFP for all facets of this acquisition and let the various vendors respond to those portions which are applicable. The advantage to this approach is that it makes all vendors aware of all the elements of the acquisition, which may effectively eliminate vendors with incompatible products. On the other hand, it may be desirable or necessary to structure separate RFP's for each type of data processing product or service being acquired, and to conduct a phased RFP approach, since multiple vendor compatibility may only be satisfactorily addressed on the basis of equipment or software already chosen by the user (e.g., choice of the mainframe host computer may affect vendor response for DBMS or selection of personal computers, not to mention networking interface capabilities).

A good RFP will effectively communicate to the vendor the user's determination to effect an efficient and binding response. The RFP must include enough specific requests for technical specifications (e.g., reliability, capacity, acceptance criteria, upgrades) associated with hardware, software, maintenance, and so on, to enable the user to compare effectively the responses received from various vendors. Equally important is the RFP's presentation of contractual issues that vendors should be aware of from the start. For example, the user may attach a draft of a form contract or specific provisions important to the user, drafted by user's counsel, to the RFP and require the vendor to specify any provisions that are unacceptable or require modifications. Alternatively, the RFP should require the vendor to attach its form agreement (which for obvious reasons it may want the user to review at the latest possible time) and to specify which items are non-negotiable. The RFP should also clearly state that all responses from the vendor must be in writing and that such responses or portions thereof will be a part of the final contract at the user's option.
B. THE MAINFRAME HARDWARE PURCHASE AGREEMENT

In structuring the Hardware Purchase Agreement, one must keep two major points in mind, beyond those points which should be covered in any mainframe acquisition, due to the nature of this particular case study. First, the document must be drafted with the view in mind that the agreement, or parts of it, will be assigned to a leasing company, and the leasing company must be able to accept such assignment consistent with its own objectives. Second, and more difficult, extreme care must be taken in coordinating acceptance and payment provisions since the usefulness of the mainframe computer here is to a large extent dependent on its ability to function properly with software and hardware from third parties. The manufacturer will be reluctant to make payment conditional on performance and testing of third party equipment and software. In this case, since the mainframe is the “bedrock” of this acquisition structure, it is more feasible for vendors of the software and personal computers to be responsible for compatibility and testing issues rather than the mainframe manufacturer. The intent of the parties should be to have acquired a fully accepted mainframe at the time that other components of the total implementation have achieved the degree of readiness necessary for testing with the mainframe. Multi-vendor problems will begin to occur as soon as there are midstream delays in the “rolling” or phased implementation process present here.

Assuming that the mainframe host computer is the initial focus of the implementation, the following is a representative list of items which should be dealt with in drafting the mainframe agreement, generally from the user’s perspective:

1. Delivery

Delivery dates and testing completion dates are crucial at this point if subsequent vendors are to have meaningful deadlines in testing their products in conjunction with the mainframe. In this multiple vendor atmosphere, penalties for failure to deliver should be firm. It should be clear that “delivery” will not have occurred until all components of the system being acquired from the vendor have been delivered. As mentioned previously, assessing liquidated damages, perhaps on a daily basis, or allowing liability for consequential damages incurred as a result of delay, may be appropriate. A helpful provision in this type of implementation allows the user, within a specific time prior to the required delivery date, to postpone delivery or even cancel the order. This provision might give the user more flexibility and provide a good method to avert
problems which might otherwise occur. But a user option to terminate the agreement is not, by itself, very helpful in this scenario where timetables for other vendors would be severely disrupted by the need to locate another vendor for a mainframe.

2. Specifications

Functional, operational, and performance specifications must be set forth in the contract in as much detail as possible, with the vendor warranting that the system will conform to these specifications. Moreover, all applicable portions of the vendor's response to the RFP should be included. Of course, in an installation such as CSC's, the number of terminals which the mainframe can handle, as well as such things as memory capacity and ability to upgrade, are crucial and should be specified in the contract. Since some specifications (e.g., screen refresh time or terminal to terminal response time) will vary depending on certain factors (e.g., size of data base, line speed to terminals, number of terminals), it will be important to establish hypothetical benchmark tests (e.g., response time with x size data base and x number of terminals) to be made a part of acceptance testing.

3. Site Specifications

Site specifications are a crucial part of any installation. Adequate protection of the user can be achieved in several ways. Ideally, the user will want to prepare the site according to specifications and then have the vendor's representatives inspect the site. The vendor should be required to approve the site in writing and state that at the time of inspection the site is sufficient to enable the system to perform according to the specifications as warranted. In the alternative, the vendor's site specifications should be attached to the contract and the vendor would then be required to represent and warrant that if the user's site conforms to these specifications, the system will function properly.

4. Acceptance Testing

From the user's perspective, acceptance testing criteria should be as subjective as possible. Preferably, the system should be accepted when it performs "to the written satisfaction of user, in user's sole discretion". This is a difficult but not impossible standard to get a vendor to accept. Lesser standards can be acceptable, such as requiring the system to operate on a rolling forward basis for x number of consecutive days without a "specification of non-conformity". If such non-compliance occurs, the cycle must start
over until the standard is met. At the least, if user-subjective criteria cannot be obtained, clear objective criteria, satisfactory to the user, should be established in advance.

In an acquisition like CSC's, performance incentives for the vendor may be appropriate. These incentives can take many forms. For example, assume the vendor is late in delivery, and, according to the contract, is liable for $x$ dollars of liquidated or other damages. In the event the vendor nevertheless completes acceptance testing on the original date set forth in the contract, the user may agree to waive such damages. A bonus may be offered to the vendor for early completion of its installation and acceptance testing obligations.

5. **Payment**

Payment terms must be closely keyed to acceptance provisions. Because of the constraints of the leasing transaction discussed below, it is preferable to have no payment due until final acceptance of the equipment. In this way, neither the user nor the leasing company will be required to pay any money until the equipment has proven reliable enough to pass a rigid acceptance test. Even better, no invoice from the manufacturer should be rendered until acceptance of the equipment by the user, and invoices may be due and payable only after a certain number of days after receipt.

6. **Warranties**

The vendor should warrant the performance of the equipment (according to the same specifications used in the acceptance test) for as long a period of time as can be negotiated, to commence upon successful completion of acceptance testing, not upon delivery. Assuming the user can negotiate a strong maintenance agreement with this vendor, the warranty in the purchase agreement should contain all the rights and remedies of the maintenance agreement, with the possible addition of a "lemon" clause. This lemon clause would require the total replacement of equipment not meeting certain reliability criteria (e.g., frequency of downtime, duration of downtime). Additional warranties should be included regarding the ability of the mainframe to support the networking requirements of the anticipated acquisition of fifty personal computers, without serious degradation of response time for those "line" terminals directly accessing the data base.

7. **Assignment**

When considering the leasing transaction, a provision must be
included allowing the user to assign the agreement or the right to purchase thereunder, while prohibiting the vendor's ability to assign without the user's consent. Such consent would be in the user's sole discretion.

8. Miscellaneous

Other provisions that are of importance, but which will not be fully discussed here, are provisions relating to (i) availability of equipment upgrades; (ii) transferability of operating systems in the event of a future sale of the equipment by user; (iii) availability of operating system software enhancements without altering functional specifications; (iv) ability of affiliated entities of user to acquire equipment with cumulating volume discount prices; (v) adequate training requirements for user personnel and delivery of user documentation; and (vi) force majeure safeguard protection.

C. Maintenance Agreement for Host Computer

In this case, the maintenance for the mainframe computer will be provided by the manufacturer of the equipment, with whom the user is also contracting for the purchase of the computer. This alleviates many problems which can occur when maintenance is provided by third party contractors.

1. Documentation

Initially, a decision should be made whether the "maintenance agreement" will be a separate document or will be integrated within the purchase agreement. For many reasons, including the lease transaction as well as the vendor's internal corporate structure, it is usually best to run a middle ground by creating a separate document, but making it an exhibit to the purchase agreement. In addition, this method also insures that the maintenance agreement is negotiated at the same time as the purchase agreement. Of course, the user will experience rapid leverage deterioration in negotiating the maintenance agreement if the vendor already has an executed purchase agreement.

2. Correlation With Warranties

The maintenance agreement must be correlated with the warranty provisions of the purchase agreement to avoid needless double payment for essentially the same services. The warranty period provided for in the purchase agreement should be drafted to provide the same level of services as are contained in the maintenance agreement, even though the maintenance agreement will not
be charged for until the end of the warranty period. Furthermore, the vendor should be obligated to maintain the system up to the warranty levels set forth in the purchase agreement while the equipment is under continuous maintenance.

3. *Level of Maintenance Coverage*

Depending on the size of the installation, the maintenance agreement may call for varying levels of coverage. In this case, realistic options would be between the customary off-site, on-call remedial maintenance, where the vendor sends personnel to the user’s site in response to service calls, and permanent, on-site maintenance, where the vendor maintains a staff of technicians at the user’s site. Naturally, coverage may shift over the duration of the contract, e.g., for the initial period of the new installation, on-site coverage may be appropriate, shifting to off-site coverage after the equipment achieves performance stability.

4. *Remedial Service Response Time*

If the contract is for on-call, remedial maintenance, response times (i.e., period of time between service request placed by the user and arrival of maintenance personnel) must be guaranteed by the vendor, with penalties for failure to do so. Failure to meet response times can be measured by a one time failure, a certain number of successive failures, or a failure to meet an average minimum response time, measured over a period of time.

Penalties for failure to meet response times can be tailored to suit specific needs of the installation. For optimum flexibility, a number of penalties can be specified, with the user having the option. These include (i) a credit against some or all of the next monthly maintenance charge; (ii) cancellation of agreement (in conjunction with (vi) below); (iii) the return of a specified amount of maintenance fees already paid; (iv) an additional period of free maintenance; (v) a requirement that the vendor provide permanent on-site staff for maintenance; and (vi) allowing the user to obtain third party maintenance assistance at vendor’s expense.

5. *Maximum Downtime Guarantee*

If structured properly, a good maintenance agreement for a large acquisition might contain a tightly drafted maximum downtime guarantee. However, from both a contractual and technical point of view, extreme caution must be taken in utilizing this complex provision. Such a provision is usually obtainable only from a manufacturer that is also the maintenance vendor. Downtime is
usually measured on a continuing basis against a certain minimum standard of performance, e.g., ninety-eight percent up-time during normal working hours over a week or a month, mean time between failures; or duration of continuous downtime. "Up-time" must be defined as a certain level of output or performance capability and any downtime or up-time calculation formula is fairly complex and will involve a high degree of technical specifications.

Possible remedies for exceeding maximum downtime can again be tailored to the specific needs of the installation. These remedies include: (i) credits against maintenance charges; (ii) cash rebates (liquidated damages); (iii) obligating the vendor, after a certain period of downtime, and at the user's option, to have the malfunctioning equipment replaced (permanently or temporarily) with a new unit on a priority basis; or (iv) obligating the vendor to provide back-up facilities for excessive downtime.

6. Charges

Charges for maintenance services should be set forth with specificity. If additional charges are required for services outside of prime-time hours, (assuming the contract is only for prime-shift maintenance) the contract should be specific with regard to conditions for commencement of additional charges (e.g., when maintenance begins during prime-shift coverage but must continue beyond those hours). Whenever possible, all service operations that will require additional charges should be specified. The vendor's ability to increase rates for service charges should be limited during the term of the agreement and for renewal periods. Limitations on such increases can be tied to the consumer price index (although this method is frequently not definitive enough for adequate protection), or a maximum percentage per year.

7. Term and Cancellation Rights

The term of the maintenance agreement and the vendor's cancellation rights in an acquisition such as CSC's are extremely important. Optimally, the user should be able to renew the contract (at charges not to exceed vendor's standard publisher rates or other contractual limitations) for as long as the user retains the equipment (or for the estimated useful life of the equipment) and the user should be able to cancel with a specific number of days notice. Obviously, any rights that the vendor may have to cancel on relatively short notice may be used as a negotiating tool to increase charges, reduce services, and so on. In this scenario, the vendor may require the user to be obligated for an extended period of time.
This may be acceptable if the user has sufficient cancellation rights in the event that the vendor fails to perform adequately.

8. Assignment Rights

The user should be permitted to assign its rights under the service contract, or to relocate the equipment. If the user wishes to sell the equipment in the future, the purchaser will want some guarantee that adequate maintenance will be available. However, the vendor may understandably insist that such a right be tempered by the vendor's right to increase charges if the assignment of the contract or the relocation of the equipment will increase the vendor's costs in providing maintenance services. The user must be prepared to allow some degree of flexibility on the vendor's part, since increased costs in the event of such assignment or relocation may not be ascertainable in advance.

On the other hand, the vendor should not be permitted to assign its maintenance obligations to any third party without the user's prior written consent, to be given at the user's sole discretion. Otherwise the user would have no guarantee regarding the quality of service to be provided. Specific exceptions can be made, e.g., the vendor may have the right to subcontract its obligations to certain named and qualified entities. Typically, when the provider of maintenance services is the manufacturer of the equipment, the user will not want any assignment rights in the vendor. In any event, the vendor should remain ultimately liable for any default of performance by any permitted third party provider.

9. Refurbishment Clauses

Many standard vendor contracts permit the vendor to certify that the equipment needs "refurbishment" and then provide that service at additional charge to the user. In essence, this amounts to an "out" for the vendor in case of a "lemon." In the maintenance agreement, the vendor should be required to provide without charge all refurbishment or reconditioning necessary for a period not to exceed the estimated useful life (or some shorter period agreed to by the user). Additionally, such refurbishment should be done at times least disruptive to the user's processing, or, alternatively, the vendor should be required to substitute temporary equipment of a comparable nature during any such refurbishment. At a minimum, the contract should specify a limit on charges for refurbishment or reconditioning, and a maximum number of times such charges will be allowed. Open-ended refurbishment clauses should be avoided be-
cause they will serve to surprise the user or to increase substantially the negotiating leverage of the vendor.

D. SOFTWARE LICENSE AND DEVELOPMENT AGREEMENT

In this case study, CSC is acquiring a perpetual license to an inventory control and distribution software package, but with major custom modifications to be made by the software company. To reflect this transaction, the license and development agreement will need to be complex and carefully drafted. This is particularly true in this case since the installation and testing of the complete product will need to be coordinated not only with the mainframe host computer installation, but also with the installation of the network of personal computers.

1. Specifications

Specifications are at the heart of the contract. Specifications for functional, operational, and performance specifications, if not set forth in an RFP, must be made a part of the contract. It is then up to the software company to develop a set of detailed design specifications for modifying the package in conformance with the user's requirements. The software company should be required to submit these design specifications for the user's approval (again, at the discretion of the user) on a planned timetable. The depth of the user's data processing staff gives the user sufficient resources to "critique" the design specifications; if they are not satisfactory, the software company will be required to correct and resubmit them. This process should continue until a mutually satisfactory set of specifications is arrived at. Of course, contractual deadlines for all phases of the contract are appropriate, even though the user may have a subjective right to disapprove certain results.

2. Programming Development; Documentation

Once the detailed specifications have been agreed upon, the software company should commence coding and programming. During this phase, as well as in the previous phase, it may be desirable to have in place the "status meeting" concept outlined above in the consulting contract discussion (including designation of project managers, and so on). As before, the purpose of this is not only to alert the user to potential problems or delays, but to reduce the possibility that the software company will blame the user or its staff for inadequate results due to non-cooperation or other problems. A development transaction of this size should be accomplished in phases. This is necessarily true if any portions of the modifica-
tions are dependent upon other portions. This also presents the opportunity for an intermediate review of documentation by the user so that an early mistake will not cause the entire project to be scuttled at the end, causing considerable loss in time and money for both parties. In addition, a phased development will also allow the user to gauge more accurately the progress of the project. At the conclusion of each phase of the programming development, the software company should be obligated to provide documentation to the user. Alternatively, it may be desirable to require delivery of documentation to the user on a periodic basis.

3. Acceptance Testing

Acceptance testing of the developed software presents a number of complexities, primarily due to the presence of other vendors for the hardware. In a software development project of this size, testing will often be done on a hardware system at the software company's site that qualifies as the initial or interim acceptance test. Then, after the user has accepted these interim results, the software will be tested at the user's site in an on-line, full or test data base environment. This testing will depend on a number of factors, such as whether the software company has the necessary equipment (possibly including some sort of networking test) to achieve a meaningful "dry-run" test. In the hardware purchase agreement for the mainframe computer, it may be possible to provide that the hardware vendor cooperate with the software company by allowing the software company to test the software equipment at the hardware vendor's site. In any event, testing on the user's own equipment will of course depend on the progress of the mainframe host facility at the user's site as well as on the progress of the installation of the network of personal computers.

Assuming the best possible scenario, and assuming all other aspects of the procurement proceed smoothly, the acceptance procedure for this modified package should be structured as follows:

Upon the user's written approval of the documentation for a particular phase of the software development ("documentation acceptance"), the software company will test that phase on a system at the software company's site. The user's written approval of the results of this test will be the "test site acceptance."

Upon test site acceptance, the particular phase will be tested on the user's system in an on-line productive processing environment, and the user's written acceptance could be labeled "interim acceptance" of that phase. Each subsequent phase will be tested on the user's equipment with all previously accepted phases also running.
Thus, there will be a pyramid testing effect until all phases are installed at the user's site.

When all phases of the developed (or modified) software are up and running in the user's environment, the user will provide written acceptance (the "final acceptance").

The contract should be drafted with a certain amount of flexibility in the event other vendors have experienced delays. The software company may end up completing all documentation and in-house testing before the user's equipment is available for live testing of any of the phases.

The standards for acceptance testing criteria are similar to those outlined in the hardware purchase agreement discussion. The standard may be the user's satisfaction, or some objective criteria, e.g., conformance to the documentation accepted by the user. The user may want to add specifications to the contract requiring the software to conform to certain specifications in final acceptance testing.

The user may want to include run time statistics for operating the software on the user's equipment and thereby requiring the vendor to insure that the software will perform at a certain rate of speed at stated volumes. Run-time tests protect the user from being stuck with software that results in excessive machine costs and thereby creates an unacceptable level of inefficiency.

The user may also include other specifications, such as programming language, edit and error recovery routines, installation or operating practices, back up procedures, or security routines.

4. Midstream Modifications

Appropriate flexibility in the contract should allow for subsequent modification of the agreed upon specifications in the event that the user determines, in light of ongoing studies or implementations, that such modifications are necessary. This will usually entail price revisions on the part of the software company and the contract should set forth an appropriate procedure for administratively dealing with this situation.²

5. Payment Alternatives

Payment provisions can be as varied and complex as the art of negotiation will allow, ranging from a lump sum license fee for the initial package and a straight time and materials basis for the remaining modification work, to a total fixed fee to be paid on final ac-

² See infra exh. B (sample provision).
ceptance. The end result usually falls somewhere in the middle. In this case, assuming that the initial package software is of no use to the user without the modifications (and as a practical matter, during the early period of this contract, the user is not likely to have the hardware on site to use the package anyway), the one-time perpetual license fee which the software company charges customers for the package alone should be merged into the total acquisition cost of the modified system.

Development of the functional specifications for the modifications is usually the phase in which a software company balks most strenuously at a fixed fee arrangement, primarily because of the numerous reworkings of the specifications at the request of the user. In such a case, it is perfectly acceptable to structure an interim type agreement whereby the software company develops the functional specifications on a time and materials basis, including a provision that the vendor charge the user for materials at no more than cost, e.g., no profit on materials. During this time, the entire contract should be terminable by the user, in the event costs are running too high compared to results. When the functional specifications are developed, the software company will be obligated to quote a fixed fee for the programming development and installation. If the fixed fee is too high, the user can take the specifications that it has already paid for and seek other bidders for the development.

However, in this case, that scenario is impractical because the development being done is a modification of an existing package owned (presumably) by the software company. Thus that company has a “lock” on the development work. Assuming the software company has offered a fixed fee for the entire job, this cost should be broken down by development phases and paid at completion times. (This is not to say that some part of the total fee cannot be made as a down payment at execution of the contract; this may be necessary in such a labor intensive product). Thus, for example, if one particular aspect of the development has been targeted at $200,000.00, perhaps ten percent can be paid on execution of the contract; twenty percent on documentation acceptance; thirty percent on test site acceptance; thirty percent on interim acceptance (on the user's equipment); and the remaining ten percent held back until final acceptance of all aspects of the system.

If, on the other hand, the software company insists that the entire project be done on a time and materials basis, the least acceptable contract would require a termination right by the user at any time, and a monthly billing by the software company of which the user is only required to pay a specified percentage. The remaining percentage would be held back by the user until completion of all
the periodic phases. While this would not guarantee costs, it would motivate the software company to provide proper and efficient services.

In a transaction where the software company insists on billing on a time and materials basis, the contract should require that the user be entitled to a breakdown of all invoices rendered, including such items as staff level of the person providing the services, hourly rates and cost of materials. The user may also desire the right to audit the software company's records for the project for the purposes of confirming the invoices rendered. It would be proper to provide that the user pay for the audit unless the audit uncovers a material error in billing practice, in which case the vendor would be required to pay for the audit costs.

6. Failure to Perform

This kind of transaction, especially when done on a time and materials basis, is an appropriate one to illustrate the desirability of providing penalties to force the software company to meet its customer's deadline. In the case where liquidated damages are appropriate, this approach will allow the user to realize these damages without suit since the user is already withholding part of the contract price.

By way of illustration, this contract is a good example of the problems that may exist because of the presence of multiple vendors in the acquisition. If the software company is ready to conduct interim acceptance or final acceptance testing, but the supplier of the personal computers has either delayed delivery or has not successfully implemented his product, the software company will be ready but unable to perform, and will insist that it be paid as if it had completed its obligations. The concept of cross consequential damages would apply here. The supplier of personal computers would be liable to either the user for payments it was required to make to the software company or directly to the software company.

7. Warranties

As with hardware acquisitions, warranties of software performance are critical to the user. Naturally, the software company will seek to limit its exposure by limiting its warranties. Nevertheless, the user must obtain sufficient warranties to be assured that the software company will stand behind its work.

Optimally, the software company will provide warranties of title, merchantability, and fitness for the user's particular purpose, as well as a warranty of conformance to specifications. However, in
this case, since the end product will be a program modified in part according to user specifications, the software company may be unwilling to make some of these warranties.

If the user can obtain a warranty that the software program is free of coding errors, it will have achieved a great deal, since most software is rarely “bug free” even after years of use.

Most probably, the user will end up with a warranty that the software, as modified, will conform to all the specifications generated and documented during the development stages.

Another crucial warranty is that of software compatibility with the mainframe host computer and other related equipment.

One type of warranty now seen more frequently is one where the software being licensed does not contain any preprogrammed termination routines, which will cut off the user’s ability to process data in certain events (e.g., use of the program beyond a certain date, transfer of the program onto different CPU).3

The software company should also warrant that it owns the package that is the subject of the modification development.

With respect to the warranty period, the user should attempt to obtain the longest period possible, possibly even a blanket warranty with no specified period that would be good for as long as the user uses the software. If the software company provides a long term warranty and the user’s rights and remedies are sufficient, the user can reduce the cost of his maintenance agreement.

The remedies for defects or non-conformance to specifications should be similar to those in a hardware warranty or maintenance agreement. Such provisions should provide specified response times for telephone consultation and on-site help, penalties for failure to meet those response times, maximum times to “fix” a software deficiency, and appropriate penalties.4

8. Ownership Rights

Ownership rights will not be easy to negotiate since this is not just a license to a software “package” or custom software paid for by the user, but rather a combination of the two.

Since standard package software is developed by the software developer and is only licensed to the user, the vendor will properly assert ownership rights in the software. The software company will attempt to assert ownership rights in the custom software. How-

3. See infra exh. E (example of a warranty covering this issue).
4. See infra app. A (discussion of the applicability of the Uniform Commercial Code to software acquisitions).
ever, a user may be in a position to resist such an assertion. If the software company retains ownership rights in the custom software, the user finances the development of a valuable software product, without being able to relicense the software in order to defray the costs of its development. The software company, on the other hand, already has been paid in full by the user to develop the custom software and may now relicense that software for additional profits. If the software company has simply provided development or conversion services to a user in developing custom software from scratch, the user might consider asserting full ownership rights over that software. But, as in this case, if the software company has modified an existing software package owned by the software company, the user may be unable to obtain ownership rights, and instead will obtain limited licensing and marketing rights. Alternative compromises between the software company and the user are as follows:

1. Joint ownership is problematic because the user is potentially exposed to liability from the software company's marketing activities.
2. Sole ownership by the user with limited marketing rights granted to the software company.
3. Sole ownership by the software company with limited use or marketing rights granted to the user.
4. Sole ownership by the software company with royalties payable to the user.
5. Sole ownership by the software company in return for reduced development charges, future services, or other products.

9. Source Code and Modification Rights

As a practical matter, and given comprehensive delivery requirements for documentation during the software development stage, the user should have access to the source code (i.e., human readable program instructions, flow charts). This fact in itself will alleviate many potential concerns of the user such as the problem of maintenance of the software in the event the software company fails or refuses to perform. The software company may require that the user agree not to disclose or market the software.

The user may want to retain the right to use its own resources to further modify the software. However, the user must realize the impact such internal modifications may have on the obligations of the software company to maintain the software. If possible, the contract should state that the user modifications will not excuse the software company's obligation to provide maintenance unless the software company can demonstrate a substantial interference with
its ability to do so. In these cases the user should have the right to restore the software to its pre-modification form in order to re-establish the maintenance contract. In the alternative, the user may wish to notify the software company in advance of the proposed modifications and obtain conformation that such modifications will not effect the maintenance obligations. Moreover, the user should specify in the contract the extent of its ownership rights in any modifications made by it to the software.\(^5\)

The user may require a patent, trade secret, or copyright infringement indemnity from the software company with respect to the package software used as the basis for the modifications. The software company may rightfully insist that its liability for this indemnity will not extend to cases where the infringement would not have occurred except for modifications made to the package by following the user's specifications.

10. **Maintenance, Support, Upgrades and Future Options**

The provisions of this section will depend to some extent upon the way the other documents are structured. If these topics are covered under the license and development contract, the integration of subject matter will presumably be sufficient. However, in an effort to set prices efficiently for each service, the software company may choose to "departmentalize" costs in order to provide for future adjustments.

As in the hardware maintenance discussion above, one must take care to insure that a software company has not arranged to be paid under the provisions of one document for services that they are required to provide at no charge under the provisions of another document. The prime example is the warranty provision in the license and development contract that should provide strong, quick responses to defects in the software. Of course, if the warranty provision is open-ended (i.e., not of limited duration), the user should not be paying anything under any separate contract for remedial maintenance. On the other hand, if the warranty is of limited duration, any remedial maintenance and subsequent payments should not commence until expiration of the warranty.

There are many valuable services software companies provide that can not be classified as remedial, such as enhancements and future options. The maintenance contract should provide that these types of software services will be provided to the user as they are developed and made available by the software company. Such services should be provided free to the user during some agreed upon

\(^5\) See supra § III(D)(8) (discussion of ownership rights).
period of time after the initial delivery and acceptance of the basic software program. Enhancements should be defined to include all software improvements that relate to operating performance but do not alter the software's basic function. Future options include improvements that alter the software's basic function. Contractual provisions should also be made for installation and training obligations. In this particular case, many of these concerns will not be as important since customized software is involved and enhancements or future options that are relevant to the standard software package may not be of use in the modified package.

11. Miscellaneous Issues

Other issues which should be recognized and confronted are as follows:

a. Conversion. Frequently, software license agreements provide that the software company and the user will both assist in the conversion of the user's data base. Details of any such conversion service should be included in the agreement. Users should be wary of open-ended cooperation clauses wherein the user or the software company agrees to provide full cooperation in the conversion of the system because such open ended promises may become a primary cause of subsequent disputes. To avoid future complications, the user may consider including details of the conversion service in the agreement and perhaps require the software company to give notice to the user of any need for cooperation. This would prevent claims that the user failed to cooperate in conversion.

b. Machine use restrictions. Software licensing agreements commonly restrict use of the licensed software to named users and single CPU's at named locations that support only those terminals operated by the user. The agreements may also limit the user to processing its own data and forbid the processing of any third party's data. In this case the contract must provide that the customer be allowed to use the software package to support terminals in the networking system and those operated by the user's parent, subsidiaries, and other affiliated entities. A topic of growing importance is whether users' corporate employees should be allowed to access the software from home operated/portable personal computers without additional charge. Moreover, the agreement should permit the user to transfer or copy the software packages for archival or back-up purposes at no charge; to replace defective copies; to verify errors; to use an alternate CPU while the designated CPU undergoes repairs; or, as is especially important here, to perform network or distributive processing at remote locations.
c. **Training.** Adequate training of the user's employees must be provided and set forth with some particularity. Formal training classes, on-site training, sufficient user's manuals, and other forms of training should be set forth, with the understanding that enough training will be provided to achieve and maintain user proficiency in the use of the software system.

d. **Transfer and assignment rights.** These rights or restrictions will depend heavily on the structure of the ownership rights in the software determined under the contract. The user should have the right to assign or transfer its rights to the software in the event of a merger or sale of assets.

e. **Approval rights of employees.**

f. **Force majeure clause.**

g. **Tax considerations.**

**E. PURCHASE CONTRACT FOR PERSONAL COMPUTERS AND PERIPHERALS**

The contract for the purchase of the personal computers and peripherals (disk drives and printers) will reflect many of the concerns and drafting issues present in the host mainframe acquisition document, especially since the manufacturer is also the supplier of the personal computers. However, some additional and different concerns are discussed below:

1. **Installation**

Many suppliers of personal computers, whether manufacturer or third party distributors, will not aid in installation since they consider these types of products as self-installable. This assumption is often unacceptable given the nature and requirements of the installation, and the responsibilities that such an installation may place on the vendors.

2. **Acceptance Testing and Payment**

Acceptance testing should be conducted in distinct stages. A pilot test should be conducted at one of the remote network facilities where it would be possible to test all uses contemplated by the installation. This may require completion of most other phases of the

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6. See *supra* § III(A) (discussion of the user's rights to approve or reject employees of the vendor in a consulting contract).

7. See *supra* § III (discussion of force majeure clauses in a multiple vendor transaction).

8. See *infra* app. B (discussion of general tax considerations in licensing software).
installation, such as the installation of the mainframe host computer, a telecommunication network system, and perhaps some of the mainframe software. This aspect will require close meshing of responsibilities between vendors and an effective approach to disputes. The most likely dispute in this scenario may be between the hardware manufacturer and the telecommunications provider. In any event, at such time as the pilot test has been accepted by the user, the vendor here should be required to commence all installation of the hardware, presumably on a phased timetable according to the user's needs. As before, payment should be tied to acceptance at each network location.

3. **Compatibility**

Compatibility issues should be clearly indicated. The hardware should be warranted for compatibility not only with the mainframe but also with the disk drives and printers as they are acquired. If the peripherals are not acquired by the same vendor supplying the personal computers, the personal computer vendor may not be willing to warrant compatibility. In this case, the supplier of the peripherals should warrant compatibility with the personal computer.

4. **Pricing**

Because of the large volume of hardware being purchased, the user will have strong leverage to acquire a good pricing structure for the fifty personal computers. Additionally, the contract may well provide for a period of time during which prices are locked in for future purchases of personal computers (and peripherals, if applicable), by the user and any affiliated entities. While there must be a time limit for such a pricing structure, a long time frame can be used if the advantage sought by the user is to have all company purchases of personal computers (and peripherals) made by the user and any affiliates count toward cumulative volume discounts. Thus, if an affiliated entity of the user buys a personal computer eighteen months from now, it would get a price based on the volume discount applied to fifty-one personal computers.\(^9\)

5. **Maintenance and Warranty**

Most of the maintenance and warranty issues will be similar to the mainframe acquisition. Some manufacturers of personal computers do not offer service; thus third party maintenance sources must be found. It is possible to use in-house data processing talent

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\(^9\) See infra exh. C (sample provision).
for this kind of service, though this may not be practical in remote network locations. Because of the many decentralized locations of personal computers, it would be wise to determine and access maintenance requirements and sources before they will be needed. In certain situations or locations, it may be desirable to have extra components available on site in the event of hardware failure. This way, defective components can be replaced and then sent in for repair. This is expensive, but it may be required in the few locations where on-site service calls are not available.

If peripherals are obtained from third party distributors, the user should obtain a "pass-through" of all available warranties offered by the manufacturer of the equipment. For maximum user protection, the distributor should be required to assist the user in any manner to enforce those warranty rights.

F. SOFTWARE LICENSE AGREEMENT FOR PERSONAL COMPUTERS

Assuming that the application software for the personal computers is a standard package needing no modifications for this installation, the user will neither need nor be able to acquire many of the protections in the previously discussed software agreement. That the software package is being acquired from a distributor, and not from the owner/developer is also a limiting factor because the distributor will not be willing to promise the user as much. Nevertheless, there are several matters that must be addressed in discussing high volume software licenses.

1. WARRANTIES

The warranty is an important element of any license agreement. There are two important types of personal computer warranties.

A warranty of compatibility states that the software is compatible in all respects with the personal computers being acquired by the user. This is a critical warranty. The distributor may not provide it if the distributor is not the developer or owner of the software. If the user does not want to look elsewhere, the user should withhold payment until the software has been both installed, at least on a pilot test basis, and fully tested for compatibility.

It is also important to have a warranty of conformance to published (or otherwise disseminated) specifications. In the event the distributor will not make such a warranty, the user has the same rights as outlined above. At the very least, the distributor should

10. See supra ¶ III (D).
pass through any available warranties from the owner/developer of the software, in addition to the distributor's own warranties.

2. **Installation**

Typically, installation services are not offered by the developer/owner for standard package software for personal computers because they are not necessary. However, some distributors will offer on-site installation services, such as several hours of training, for an additional fee. In this case, the user will have a sophisticated staff of data processing professionals, and should not need installation services. However, it may not be a bad idea to provide an option for the user to request such services from the distributor for an additional fee.

3. **Support**

Again, in this type of transaction, the full panoply of support found in contract for a customized piece of software will probably not be necessary or available. However, a provision for guaranteed availability of new versions or enhancements of the software may be desirable.

4. **Miscellaneous**

If possible, the licenses being acquired in this agreement should be perpetual and have a one-time fee. If the distribution requires a monthly license fee, the term of the license should be long enough to make the user comfortable, or else indefinitely renewable at the user's option. In addition, a blanket notice and right to cure provision should be included to cover the possibility of an inadvertent default by the user (e.g., late payment).

Restrictions on the use of each licensed program should be clear and acceptable, and should avoid ambiguities regarding multiple location use. The contract should spell out the parameters of the user's entire installation and the part this software will play. This will avoid any misunderstandings regarding the intended use of the software.

Pricing discounts should be available not only for the original acquisition of licenses, but for future acquisitions of the same license and of new versions and/or enhancements. If possible, these volume discounts should be cumulative.

G. **TELECOMMUNICATION SERVICES CONTRACT**

The proper networking capabilities of the entire installation depend on the availability of dependable, efficient telecommunications
between remote sites and the host facility. Since the public utility (Bell System) communications network does not offer meaningful warranties of performance, a private communications company is a better choice. Thus, contracting for telecommunications services is not unlike contracting for hardware services.

1. **Testing and Acceptance**

As in the hardware acquisition, a proper test procedure should be set forth in the contract for telecommunications services. Ideally, prior to any contractual commitments on the part of the user, the vendor here should provide a test application of its services in an environment with a remote personal computer and the host mainframe. Assuming the results meet specifications acceptable to both user and vendor, services for the rest of the network can be implemented on a location-by-location basis.

2. **Specifications**

The user should obtain as many specification warranties as possible, especially regarding line transmission speeds, which usually will vary depending on time of use, and communication protocols. The availability of virtual connections and the parameters which control the operation of particular virtual connections should be specified.

3. **Remedies**

Remedies for failure to maintain specifications should be specific and clear. Usage credits are typical remedies. If performance standards fall below a certain level of availability or speed, however, this will seriously affect the user’s ability to process data. Harsher remedies may be appropriate at this point, such as providing a higher grade of dedicated transmission at no extra charge, or allowing the user to contract elsewhere for a particular need with the vendor paying additional user costs.

4. **Pricing**

It is very important to set forth most or all pricing options available for providing telecommunication services, even if the user does not intend to use particular transmission means. Difficulties or increased use may make other transmission means necessary or desirable. All parameters and means for charging the user should be detailed.
H. THIRD PARTY LEASING CONTRACT

A complete analysis of the many economic, practical, and tax issues surrounding the leasing of data processing products is beyond the scope of this Article. However, a discussion of selected issues relating to the facts of this case study is appropriate. For our purposes, we will assume that the transaction is in the form of a third party financed "hell or high water" lease.

1. The Decision to Lease

While there are many related reasons to opt for a leasing arrangement rather than a purchase or installment sale arrangement, the two basic motivations are these:

a. Accounting. Both the decision to purchase or lease and the structure of the lease have a substantial impact on the user's financial statements. With an outright purchase, or a "capital" lease,11 the hardware must appear as a capital asset on the balance sheet, and payments for it cannot be expensed. With an "operating" lease, no balance sheet entry will be made and lease payments can be expensed.

b. Economic and tax considerations. In making a lease decision on these considerations, the user can expect to make lower than ordinary lease payments. This is because of the lessor's ability to use the tax benefits associated with owning equipment to reduce his costs.12 The lessor's ability to use these tax benefits will depend on proper structuring of the lease under IRS guidelines.13 "Safe harbor" leasing, which set forth IRS rules guaranteeing "true lease" treatment, was popular in 1981 and most of 1982. However, the Tax Equity and Fiscal Responsibility Act of 198214 called for the repeal of safe harbor leasing after December 31, 1983. The tax benefits accruing to the lessor are usually reflected in lower lease payments to the lessee. Many lessees make the decision whether to lease or purchase by analyzing these lower payments in terms of the effective interest rate such lower payments offer. However, the better analysis is a discounted cash flow or present value analysis.

2. Acceptance Tie-in; "Hell or High Water" Aspects

Almost all third party leveraged lease transactions are struc-

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12. The owner's benefits include the investment tax credit (ITC) and deductions for depreciation.
tured so that the lessor may provide twenty to thirty percent of the actual price of the hardware and finance the rest of the price. This is done by selling the income stream from lease rental payments to a lender in return for a non-recourse-to-lessor loan. Naturally the lender will accept this structure only if the income stream is guaranteed come "hell or high water." Thus the lease documents will provide that no default on the part of the lessor will release the lessee from its obligation to make payments.

In a major installation, the user should not commit himself to unconditional lease payments until he is confident that the equipment is operating smoothly. The best way to achieve this result is to make two agreements—one with the manufacturer of the hardware and one with the leasing company. The agreement with the manufacturer should contain all the remedies and warranties possible, as discussed earlier. The agreement with the leasing company assigns them the purchase rights under the purchase agreement and requires them to pay for equipment only when the user would have had to pay for it under the purchase contract. The purchase contract should call for no large payments until the equipment has successfully completed acceptance testing. The leasing company will therefore not be obligated (and should not be allowed) to pay for the equipment until the user is satisfied. This gives the user the right to cancel the deal if the equipment does not perform adequately, before the commencement of "hell-or-high-water" payments.

Several tensions exist in this type of financing arrangement that must be provided for in the lease documents and carefully monitored. Assuming the lessor wishes to take advantage of the investment tax credit (as opposed to passing it through to the lessee), the lessor will want to make sure that the equipment qualifies as new "section 38" property at the time it acquires title. The lessee will also desire this qualification since a tax indemnification provision is bound to be present. This is because property is not considered "new" once it is "available for use." Thus, it is not necessarily true that the equipment will only be "ready for use" under the IRS rules once the user has "accepted" the equipment under the purchase agreement. An "acceptance test" may be defined as the productive use of the hardware for a period of thirty days. Obviously, the equipment will have been "used" prior to official acceptance under the acquisition documents. The leasing company, the user, and the hardware vendor may therefore have to sit down prior to the execution of any documents, and determine what will constitute acceptance. The leasing company should agree to take the risk that the IRS will not consider the equipment to be available for use prior to
acceptance. An alternative solution is to provide that the lessor acquire title to the equipment at a time when no doubt exists as to its status as "new," but that the lessor will not assign the lease or rental proceeds until after acceptance testing has been satisfactorily completed.

3. Pricing; Lease Payments

The optimal arrangement for the user is to have the leasing company offer a long term commitment for funds at a certain rate or at specified changing rates over time. Such an arrangement would not include an obligation on the part of the user to use those funds. This agreement allows the user to determine its needs for third party financing over a long installation period. This is especially useful when the user seeks financing for multiple installations occurring over a long period of time and is firmly committed to acquiring all equipment from the vendor. Naturally, the leasing company will be reluctant to go along, since it is the leasing company and not the user who has made a legal commitment. An argument could be structured, however, which, while not requiring the user to fund any transactions, provides that should the user decide to acquire equipment under the manufacturer purchase contract, but does not want to purchase outright, all or part of the equipment will be financed through the leasing company. A commitment fee might also be an agreeable device to serve a long term commitment.

Care must be taken to structure the lease documents so that the user is not obligated to make "extra" lease payments. For example, lease payments should not commence until the user has accepted the equipment pursuant to the underlying purchase agreement with the manufacturer or until the lessor has fully paid the manufacturer, whichever occurs later. In our case study, lease payments will probably commence upon payment of the purchase price by the lessor to the manufacturer. Since any lease payments to the lessor will have a "profit" factor included, it is to the lessee's benefit to cause payment to be made by the lessor as late as possible. This can be achieved by attempting to prohibit the lessor from making payments to the manufacturer until three to five days before payment is actually due, rather than immediately upon receipt of the manufacturer's invoice.

Provisions in leases for "interim rent" should be avoided or dealt with carefully. These provisions allow lessors to charge rent to a lessee prior to the actual commencement of the term over which the equipment is financed. Thus, it is "extra rent." Naturally, no interim rent should be paid before lessor pays the manufacturer, but
in addition, the lessee should attempt to coordinate its purchase or acceptance so that the manufacturer is paid as closely as possible to the commencement of the lease term (usually the first of the month or calendar quarter after acceptance, or, in this case, after payment by the lessor to the manufacturer). This will reduce the number of interim rent days to a minimum.

4. Tax Indemnification Issues

Most third party lease transactions that are entered into for tax reasons contain a tax indemnification provision for the benefit of the lessor. Usually these are drafted in very broad language, requiring the lessee to indemnify the lessor (usually through increased lease payments) in the event that the lessor, for any reason, loses any of its anticipated tax benefits, except its inability to use those benefits effectively because of lack of taxes to pay. Thus, the lessee will shoulder all of the risk in the event lessee’s or lessor’s actions (such as miscalculating the “available for use” standard discussed above) prevent the exercise of a tax benefit.

In a major acquisition, the user may have sufficient negotiating leverage to scale down this potential liability. Preferably, the lessee’s indemnity for a loss of tax benefits to the lessor should occur only in those circumstances where the lessee’s own actions or inactions have resulted in lessor’s loss. As for loss of tax benefits due to tax code changes, lessee should only be responsible for those changes made prior to lessee’s acceptance of the equipment, or some other similar milestone where the lessee can, under the agreement, decline to proceed with the financing arrangement.\footnote{See exh. D (example of a tax indemnification provision that is more favorable to the lessee than are most forms).}

5. Miscellaneous Lease Issues

Beware of interest payments that are calculated by assuming payment at the end of the month (financing in arrears) while the lease calls for payments to be made at the beginning of the month. The result is that the lessee is paying interest on money it no longer has or owes.

The lessor usually requires the lessee to maintain the equipment, often by requiring the lessee to enter into a maintenance contract with the equipment manufacturer. The lessee should make sure that it has a solid maintenance contract for the equipment acceptable to the lessor, and that it has a term (subject to lessee renewal) as long as the maintenance requirement under the lease. Another possibility is to give the lessee carte blanche regarding
maintenance, as long as it guarantees and will pay for the equipment to be refurbished at the end of the lease term, ensuring certifiability for maintenance by the manufacturer.

Special attention should be given by the lessee's financial staff to provisions for payment to lessor of a "casualty value," in case of destruction of the equipment, or an "early termination value," in case the lessee wants to "walk away" from the lease, to insure that the lessor is not getting more than it would have gotten had the lease not terminated early. If the equipment does suffer a casualty, the lessee may want the ability to replace the destroyed equipment with like equipment found elsewhere in the market place, in lieu of paying a casualty value. However, this may not be acceptable to the lessor in a situation that may adversely affect the investment tax credit on the original equipment.

All documents or side agreements involving the equipment being financed under the third party lease should be clearly referred to in the body of the lease agreement. This will prevent problems later when a lender reviews the lease, since the lender will then be on notice as to any other documentation that may be relevant to its financial decision.

I. AGREEMENTS WITH EMPLOYEES OF USER AND VENDOR

1. Confidentiality

Depending upon the nature and size of an implementation, it may be important that employees of the vendor, and perhaps employees of the user, be parties to agreements protecting the confidentiality of information that may be made available to them in the course of a major installation. The user will be in the best position to know what kind of information the vendor and its employees will be exposed to, and the level of protection that will provide adequate security. A well drafted confidentiality section in the vendor agreement may be sufficient, with a comprehensive but generic list of potential information to be kept confidential. The vendor should be obligated to notify the user in the event the vendor becomes aware of any incidence of a breach of the confidentiality provisions. For more comprehensive safeguards, the user may want to require that all or some select employees of the vendor sign individual confidentiality agreements with basically the same terms.

2. Non-Solicitation

In many instances, a vendor will insist on a clause prohibiting the user from soliciting the vendor's employees for employment by the user. This is understandable in software development agree-
ments where one or more employees of the vendor might be invaluable to have on the user's staff. While the user would be hard pressed to refuse such a clause, a user can always attempt to reduce the time frame in which solicitation is prohibited. Where the user has a highly skilled team of data processing professionals, the user may wish to make such a non-solicitation clause mutual, thus precluding the vendor from taking talented user personnel.

3. Proprietary Information

Where the vendor is engaged in software development work for a user, the user may want individual agreements with vendor's key personnel (and perhaps even the user's own personnel, if they will be working closely on the project), in which those employees clearly relinquish any rights to proprietary information to which they may have contributed. The user may also wish to make them agree not to work on any similar software projects for anyone else (especially a competitor of the user) for a given period of time.

IV. CONTRACT ADMINISTRATION AND IMPLEMENTATION OF THE PROCUREMENT

If the contracts for a major installation have been negotiated and drafted carefully to provide the user with as much flexibility and protection as is possible, the user will have gained a tremendous advantage over inexperienced or less aggressive users. This advantage will be rapidly lost if the user fails to capitalize on the concessions and protections offered by neglecting to plan, implement, and carry out an effective contract administration program for the system implementation. This is especially true when there are multiple vendors involved with a high degree of overlapping responsibilities.

In an implementation of this size, it may be worthwhile for the user to set up a hierarchy of project managers, with one manager for each phase or contract. One of the first assignments for each project manager should be to inform those members of the user's staff, whether in the data processing department or not, who may deal with the vendors or be required to approve results, of the contractual requirements and organization. This will aid in the effective implementation of the user's rights. It is of paramount importance that the user's staff, primarily its project managers, always keep the contractual obligations of both parties in mind during the applicable implementation phase. A project manager, during the expected time of delivery, should reread the contractual language on delivery. This may refresh his mind concerning important user options to
postpone delivery, or remedies in the event of a delayed delivery. Similarly, this step should be taken during site preparation and acceptance testing. The user's staff must not be allowed to rely on the vendor's personnel to inform them of the contents of the contract. It is typical for the user's staff to look at the contract only when something has gone so badly that they no longer believe the vendor's reassurances that solutions are "just around the corner." Usually, this is too late to make effective use of contractual protections.

One of the critical elements of a thoughtful contract administration plan is for project managers to keep a log during the course of the implementation. The written record of events should be reviewed and used as an active guide to aid the implementation and resolve differences.

A. Typical Problems Occurring for Lack of Contracts Administration

1. Continual Delivery Delays

Often, vendors will fail to deliver products on time but will assure the user that delivery is imminent. If the vendor has established some rapport with the user's staff no action is taken. However, when the vendor has delayed enough so that the user's implementation schedule is seriously jeopardized, and other vendors may suffer damages, the delaying vendor may claim that the user acquiesced to the delays, and the vendor may avoid any liability. To escape this result through proper contracts administration, the user should send a notice of default every time a delay occurs, and specifically provide that none of the user's rights and remedies under the contract have been waived.

2. Maintenance Response

It is essential that detailed records be kept of the vendor's performance in the maintenance area. Those members of the user's staff who will be dealing with the vendor's maintenance personnel should be provided a summary of the vendor's obligations regarding maintenance, remedial response time, time to repair, up-time guarantees, and so on, and should be required to document all activities of the parties connected with these issues. In this way, remedies will not be lost and the user will have sufficient documentation to back up claims of poor vendor performance.

3. Future Transactions

The benefits of proper documentation can go beyond the immediate implementation. Assuming certain problems arise in the cur-
rent implementation, evidence of poor performance on the part of the vendor may enhance the user's negotiating position and cause the vendor to make certain concessions.

B. Use Of Forms

To some extent, those drafting the contractual agreements between vendor and user can influence the degree of effective contract administration by requiring that the obligations (of vendor, user or both) be in writing and on a particular form which should be referred to in the contract and attached to it. If the vendor knows that the form acceptance certificate attached to the contract must be used before payment will be made, it will see to it that that form is presented to the user. Hopefully, the form will contain sufficient detail to protect the user in the event the installation experiences problems. Even more helpful is the requirement that such forms be signed (or at least countersigned) by someone who is aware of the detailed contents of the contract and who will not fall victim to vendor's insistence that "everything is okay, so sign this form."

Nevertheless, nothing can take the place of diary-like entries of problems and special circumstances that arise in any installation, and which will help the user (and perhaps the vendor) in implementing the full contractual intent of the parties.

V. Dispute Resolution Short of Litigation

A. An Unforeseen or Overlooked Element of the Procurement

In all major sophisticated procurements, some overlooked item will surface once the implementation is well under way, or after it appears that the implementation has been successful, causing the user problems in its effective use of the system. This is not the situation in which one party has breached an agreement or failed to perform, but rather one in which a situation arises that is unexpected and no one is "at fault." In this instance, the user will have lost a large share of his negotiating leverage if the installation is well under way. It will be up to the user to use creatively whatever flexibility was drafted in the original agreements to increase its negotiating leverage with the vendor to resolve a problem of this type.

B. Breach of Agreement or Failure to Perform

A dispute may arise between the user and vendor in the implementation process that is not readily handled or addressed in the contractual documents, or the contractual remedies are not practical
at the time of the dispute. There are several steps that the user's advisors should take in order to assess and deal with such a dispute effectively.

1. **Nature of Transaction**

There may be a substantial difference in determining an appropriate vehicle to resolve a dispute depending on the nature of the transaction. The user's advisor should analyze the dispute in terms of the nature of the transaction or multiple transactions involved. The advisor should also review the applicable vendor agreements.

2. **Involved and Related Parties**

A necessary ingredient of the preliminary analysis is recognition of the parties involved, including those potentially culpable and those otherwise influential. This applies both in the context of preparing a complaint and in the determination of contacts for dispute resolution. Consider the following entities or parties that may be involved, either directly or indirectly, with a given transaction: consultants, direct vendors, manufacturers, suppliers, distributors, employees of providers of services, third party maintenance companies or divisions or separate entities, individual salespeople or other representatives, financial institutions, leasing entities, licensors or sub-licensors of software segments, software developers, providers of telecommunication services, contractors involved in site preparation.

3. **Information Gathering Process**

It is equally important to realize that the information that will be helpful in determining an appropriate mode for resolving a dispute can be garnered from a great number of individuals, but not necessarily those who would be thought of in the first instance.

While management may be fully aware of the disruption that is being caused by a malfunctioning computer system, it may only be the data processing or accounting department staff that fully understands the magnitude of the problems that have been suffered because of a particular vendor. For example, if a malfunction causes difficulties in producing financial information, it may be that the delay was compounded by the fact that re-store and back-up procedures were not followed or were not as available as they should have been. Furthermore, the data processing staff may have failed to back-up information adequately and timely, thus adding to the magnitude of the delay. The answers to these inquiries may dictate the strength of a user's perception that a problem attributable to a
vendor has occurred. Claiming that the vendor has failed to provide adequately for such procedures will be an extremely unsuccessful approach.

Accordingly, when counsel is representing and advising a user, it is critical that he interview a full range of the user's employees and consultants who will be able to inform the advisor of the difficulties that have been suffered with the system. They can also clearly define the historical progress in the attempts to resolve disputes with vendors or outside resources.

Moreover, there may be a substantial amount of documentation that should be reviewed. The information that one will preliminarily want to review will not necessarily be "technical documentation," but may include logs, computer print-outs that demonstrate the failure routines and error messages, and correspondence. It should not be forgotten that a well-documented transaction at the contractual stage may be the key to determining the nature and scope of the dispute and how it should be resolved. Accordingly, one will want to review documents that were exchanged between the parties early in their relationship; e.g., the contract drafts, correspondence, promotional material, and other literature.

4. Role of the Attorney and Other Professionals

A dispute concerning implementation that has continued for any significant period of time will create great frustration and anxiety. This will affect the user's perception of the next step. Counsel should bring an objective analysis to the magnitude of the dispute and, more importantly, bring a pragmatic approach to resolving the dispute.

In determining an appropriate course of action, counsel may wish to consider the participation of other individuals in the process, such as accountants, experts, consultants, or other users having substantially similar problems.

5. Initial Damage Calculations

The economic effects of computer hardware or software failure can be extensive. In order to determine the appropriate course of action for a user, counsel should make a thorough investigation of the costs incurred by the user as a result of the system failure.

C. Resolution Alternatives

1. Initial Adversary Contact

Users have several initial responses to choose from when fail-
ures occur. The user may obtain relief without filing a lawsuit simply by contacting the vendor. With the assistance of counsel, the user could draft a letter to the vendor requesting both a reasonable and equitable resolution. The user may consider sending, directly or through counsel, a similar letter to the vendor's counsel to inform them of the dispute. Frequently, the user can derive an advantage by preparing a complaint and delivering it to the adversary with an offer to settle prior to filing and service. Such a tactic gives the user's credibility a boost. However, the user should beware of being unprepared to follow through with the litigation since engaging in an unsuccessful bluff may affect credibility.

2. The Creation of New Transactions

Computer disputes very often result in new acquisitions because, even if dissatisfied with the present system, a user may wish to continue business relations with the vendor. In this instance, the user should request that the parties enter a new transaction, carefully documented to avoid the pitfalls of the failed transaction. The user may be able to negotiate price concessions in the new transaction because the vendor has an interest in retaining the user as a customer and avoiding the impending adversity. If the vendor retains the user as a customer, the vendor will receive future revenues from add-on parts, replacements, system upgrades, and so on. The user may want to continue dealing with the vendor while upgrading its existing system. For instance, if the user's present system does not contain sufficient disk capacity, the user may want to trade-in that system for a system with more disk capacity. There is inherent risk in continuing business relations with a vendor after one of its computer systems malfunctions. The vendor may not be able to furnish the user with a system which operates properly and meets the user's needs.

3. Arbitration

Arbitration is another alternative that should be reviewed if less formal attempts fail. However, there are certain dangers that may make arbitration less appealing than litigation.

VI. CONCLUSION

In any major system procurement, the safest course is comprehensive planning at an early stage. This encompasses not only the necessary technical planning, but also the legal and financial planning necessary to meet foreseeable eventualities. Not only will this aid the user in achieving a satisfactory result, but detailed planning
and documentation will inspire confidence in vendors that the user is experienced and efficient, thus motivating the vendors to do their best, and at the same time minimizing the potential for disruption and inefficiency on the part of the vendor. A well-planned and well-organized implementation is just as much a matter of spirit and dedication brought on by such planning and organization, as it is a matter of the organization itself.

**EXHIBIT A**

*Project Managers: Review Meetings; Project Problems; Progress Reports—Sample Provision*

1. User and Vendor have designated one individual to serve as Project Manager and from time to time may designate in writing a temporary alternate Project Manager who shall be deemed to have authority to issue, execute, grant or provide any approvals, requests, notices or other communications required hereunder or requested by the other party hereto.

2. Once every other week (or as otherwise determined by the parties in writing) from the date hereof to the acceptance of the system, the vendor and user Project Managers, and appropriate additional personnel involved with the particular tasks underway, shall meet to discuss the progress made by Vendor and User in the performance of their respective obligations hereunder since the last meeting. At each meeting, Vendor and User may provide each other with a written status report specifying in detail any problem or circumstance (a “Project Problem”) encountered since the last meeting (including without limitation the failure of User to perform any of its obligations hereunder or the inadequacy of any such performance by User or Vendor) which might prevent Vendor or User from meeting any of its obligations hereunder (any such delay being hereafter referred to as a “Project Delay”).

3. Subject to the occurrence of (i) an event not within the control of or foreseeable by Vendor, (ii) adjustments required as a result of any authorized modification/change request (as defined in section — hereof), (iii) additional burdens incurred as a result of User's alleged failure to perform any of its obligations hereunder or, (iv) a request or demand by User for the performance of services by Vendor which Vendor can reasonably demonstrate are outside the content or intent of the Design Specifications, Vendor agrees on the terms and conditions set forth herein to perform all of its obligations hereunder in a timely fashion and at a cost to User as set forth specifically herein. If one of the events or circumstances specified in (i) through (iv) hereof should occur, Vendor shall provide User in
the report described in section 2 hereof, a full description of any such Project Delay or Project Problem (as those terms are defined in section 2 above) associated with any such occurrence at the next regularly scheduled meeting of the Project Managers following such an occurrence. In addition, Vendor shall recommend alternative courses of action or design changes that will allow Vendor to meet its obligations hereunder.

4. In the event that User is not reasonably satisfied that one of the events or circumstances specified in (i) through (iv) of section 3 above has occurred, User may direct Vendor to proceed with any of the alternative services or actions recommended by Vendor without prejudice to User's right to claim that Vendor is not entitled to any adjustment in its obligations hereunder as a result thereof by so notifying Vendor in writing, in which event Vendor shall proceed promptly with such services or actions. However, Vendor's proceeding shall not prejudice its rights to claim that it is entitled to an adjustment of its obligations; provided, however, both parties hereto agree not to impede the progress of the installation hereunder and to negotiate such claims in good faith within thirty days of the acceptance of the System.

5. Submission by Vendor or User of the reports specified in section 2 hereof shall not alter, amend or modify User's or Vendor's obligations pursuant to any other provision of this Agreement and, if the parties cannot agree on how to proceed in the event of a Project Delay, the provision of section 4 hereof shall govern the continuance of the installation and the procedures to negotiate said disagreements.

EXHIBIT B
Modification/Change Procedures—Sample Provision

1. At any time during the term of this Agreement, should User desire Vendor to provide any additional services in the form of a modification of, or a change to, Vendor's performance hereunder, Vendor and User shall comply with the following administrative control procedures:

1.1 User's Project Manager shall submit to Vendor on the form attached hereto as Exhibit — all requests by User for any such additional services which alter, amend, enhance, add to, or delete from the Minimum Specifications, the Detailed Design Specifications or the Supplemental Specifications, and/or the time and/or place of performance (hereinafter referred to as a “Modification/Change Request”);

1.2 Vendor will evaluate each such Modification/Change
Request at no additional cost to User and return a copy of the same Modification/Change Request to User’s Project Manager as soon as possible but not later than ten working days following Vendor’s receipt of the Request. Vendor’s written response on said form shall include a statement of the availability of Vendor personnel and resources and the impact, if any, on the Project Completion Cost, the Project Completion Date or any Task Completion Time or Cost;

1.3 Should User elect to authorize such Request, User will, as soon as possible but not later than ten working days, authorize Vendor to perform the requested Modification/Change Request by returning a duly authorized copy of the request form to Vendor’s Project Manager;

1.4 Upon such authorization by User’s of the Modification/Change Request, Vendor will commence performance in accordance with such Request;

1.5 Vendor shall not be obligated to perform any additional services in advance of written authorization from User on the required Modification/Change Request form. In the event that Vendor commits resources to the performance of a Modification/Change Request without such prior written authorization, it shall be presumed that performance of such Modification/Change Request will have no effect on the Project Completion Cost, Project Completion Date or any Task Completion Time or Cost;

1.6 For the purposes of this Agreement, each Modification/Change Request duly authorized in writing by User shall be deemed incorporated into and part of the Minimum Specifications or Detail Design Specifications, as the case may be. Each such Request shall constitute a formal change to this Agreement adjusting the Project Completion Cost, Project Completion Date and/or Task Completion Dates or Costs as finally agreed upon for each authorized Modification/Change Request. In no event shall the Minimum Specifications, the Detailed Design Specifications, or any provision in this Agreement be deemed altered, amended, enhanced or otherwise modified except through written authorization by User of a Modification/Change Request in accordance with subsection 1.3 above.

EXHIBIT C

Volume Pricing—Sample Provision16

It is understood that equipment ordered after December 31, 1984 may be subject to a varying price schedule of Vendor that may be

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16. These materials and this sample provision are not meant to discourage the appropriate antitrust analysis.
inconsistent with that set forth in Exhibit — hereto, which prices shall be determined by Vendor as it sees fit. This new price schedule will contain certain quantity discounts offered by Vendor to its actual and potential customers. For purposes of any order of equipment by User, or any of its affiliated entities, whether subject to the prices set forth in Exhibit — or such prices as may be in effect after December 31, 1984, all equipment ordered by User or any of its affiliated entities shall be available for purchase (i) prior to December 31, 1984 at the prices set forth in Exhibit — hereto; and (ii) subsequent to December 31, 1984 and through December 31, 1986, at the most favorable quantity discounts that may be in effect at that time, which discount shall be determined by calculating the cumulative quantity of each component acquired pursuant to this Agreement through the date of any such order, whether ordered by User or any of its affiliates.

EXHIBIT D

Tax Indemnification—Sample Provision

1. This Lease has been entered into on the basis that the Lessor and/or any persons, firms, corporations or other entities to which Lessor transfers title to all or any portion of the Equipment (the “Owner”) shall be entitled to such deductions, credits and other benefits as are provided to an owner of property including, without limitation:

   (a) the investment tax credit allowed by section 38 and related sections of the Internal Revenue Code of 1954, as amended (“Code”), in an amount equal to the percentage of the Lessor’s Original Cost of the Leased Property set forth in paragraph 5 below under the heading “Investment Credit;”

   (b) a recovery deduction for the Leased Property under section 168 of the Code as set forth in paragraph 5 below under the heading “Recovery Deduction;”

   (c) the deductions under section 163 of the Code in the full amount of any interest paid or accrued by the Owner in accordance with the Owner’s method of accounting for tax purposes with respect to any indebtedness incurred by the Owner in financing its purchase of the Leased Property (“Interest Deduction”).

2. If the Owner shall lose, shall not have or shall lose the right to claim or if there shall be disallowed or recaptured with respect to the Owner, all or any portion of such deductions, credits and other tax benefits as are provided to an owner of property, including, without limitation, the Investment Credit, the Interest Deduction or the Recovery Deduction as are provided to an owner of property with
respect to any Unit as a result of an act, a failure to act, or misrepresentation of the Lessee, or the inaccuracy of any representation in paragraph 4, including, without limitation, a sale or transfer of Owner's interest in the Leased Property arising out of a default by Lessee under the Lease or a change in the Code or the regulations promulgated thereunder effective as of a date on or before the Date of Acceptance of such Unit ("Loss"), then, subject to paragraph 6 hereof, on and after the next succeeding rental payment date after written notice to the Lessee by the Owner that a Loss has occurred, the Lessee shall pay as additional rent, an amount for such Unit which, after the deduction of all taxes required to be paid by the Owner by virtue of its receipt of such amount and after taking into account the effects of any interest or penalty required to be paid by the Owner as a result of such Losses, in the reasonable opinion of the Owner, will cause the Owner's net after-tax rate of return over the term of the Lease in respect to such Unit to equal the net after-tax return that would have been available if the Owner has been entitled to the full utilization of such deductions, credits and other benefits.

3. For purposes of this Special Provision, a Loss shall occur upon the earliest of (1) the payment of the Owner to the Internal Revenue Service of the tax increase resulting from such Loss, or (2) the adjustment of the tax return of the Owner to reflect such Loss; provided, however, that in the event the Owner receives any written notice from the Internal Revenue Service sufficient to apprise Lessor that a Loss has occurred or is or will be threatened, the Owner shall promptly notify the Lessee of same in writing, whereupon the Lessee shall have the option, within ten (10) days after receipt of such notice from the Owner, to either (a) pay the additional rent provided in the preceding paragraph 2 with respect to such Loss, or (b) notify the Owner in writing of its desire to contest such Loss. Lessee shall be entitled to elect option (b) only after delivery to Owner of an opinion, in form and substance reasonably acceptable to Owner, of independent tax counsel that lessee has a meritorious defense, and upon a representation that such Loss will be contested in good faith and by appropriate proceedings. Upon proper election of option (b), the Lessee's obligation to pay such additional rent shall be deferred until the conclusion of such proceedings. Any cost or expenses incurred in connection with such proceedings shall be borne by the Lessee and the Owner shall cooperate in securing a final determination of the matter. Nothing contained herein shall be construed as requiring the Owner to pay any tax or to provide any bond for the payment of tax prior to the receipt of additional rent hereunder, or as requiring owner to extend
any applicable statute of limitations. If Owner, in good faith, shall determine that continuation of such proceedings will have a material adverse effect on Owner's ability to resolve any outstanding tax issues with IRS, then Owner may elect to pay the tax demanded. In such event, the additional rent shall become due and payable. Lessee shall be entitled at Lessee's expense, to institute and pursue appropriate proceedings to secure a refund and shall be entitled to any interest paid by IRS in connection with such refund. Lessee shall reimburse Owner, upon demand, for Owner's out-of-pocket expenses incurred in connection with all proceedings hereunder.

4. The Lessee represents and warrants that (i) at the time the Owner becomes the owner of each Unit, such Unit will not have been previously placed in service or used by any person so as to preclude "the original use of such property" within the meaning of sections 48(b) and 168 of the Code from commencing with the Owner, and the Owner shall be entitled to the Recovery Deductions with respect to such Unit as provided in section 168 of the Code, as amended, from the date thereof; (ii) at the time the Owner becomes the owner of each Unit, no Investment Credit, Recovery Deduction or other tax benefits will have been claimed by Lessee or others with respect to such Unit; and (iii) at all times during the term of this lease, the Lessee will do nothing which will cause the Units to cease to be "section 38 Property" within the meaning of section 48(a) of the Code.

5. **Investment Credit:** Ten percent of Lessor's Original Cost.

**Recovery Deduction:** A recovery deduction under the Accelerated Cost Recovery System ("ACRS") provided for by the Economic Recovery Tax Act of 1981 in an amount equal to the Lessor's Original Cost of the Lease property over a period not greater than five (5) years and in the amounts provided for in section 168(b)(1)(A) for 5-year property.

6. Anything to the contrary contained herein notwithstanding, the Owner will not be entitled to a payment of supplemental rent as described above as a result of a Loss due solely to one or more of the following events:

   (a) the sale of other voluntary transfer of any Units by the Owner prior to any default by the Lessee;

   (b) a failure of the owner to timely or properly claim such deductions, credits and other benefits;

   (c) a disqualifying change in the nature of the owner's business or liquidation thereof;

   (d) a foreclosure by any person holding through the Owner a lien on the Units, which foreclosure results solely from an act of the lessor and not as a result of any default by the Lessee;
(e) any event, which, by the terms of this Lease requires payment by the Lessee of the Casualty Value, if such Casualty Value is thereafter paid by Lessee;

(f) the failure of the Owner to have sufficient taxable income against which to apply such deductions, credits and other benefits.

7. All of the Owner's rights and privileges arising from the indemnities contained in this Section shall survive the expiration or other termination of this Lease with respect to any or all Units leased hereunder, and such indemnities are expressly made for the benefit of, and shall be enforceable by the Owner, its successors and assigns. As used herein, the term "Owner" shall include the members of the consolidated group with which Lessor files its federal income tax returns (and shall include Lessor in the event Lessor has transferred title to all of the Leased Property), and the term "Lessee" shall include the parent of Lessee, any affiliates or subsidiaries of Lessee and any successors and assigns of Lessee, including any subleases of the Leased Property.

EXHIBIT E

Pre-programmed Termination Warranty—Sample Provision

Vendor represents and warrants that the Software System (and any portion thereof) does not contain any timer, clock, counter or other limiting design or routine which causes the Software System (or any portion thereof) to become erased, inoperable, or otherwise incapable of being used in the full manner for which it is designed and licensed pursuant to this Agreement after being used or copied a certain number of times, or after the lapse of a certain period of time, or after the occurrence or lapse of any similar triggering factor or event. Furthermore, Vendor represents and warrants that the Software System (or any portion thereof) does not contain any limiting design or routine which causes such software to be erased, become inoperable, or otherwise incapable of being used in the full manner for which it was designed and licensed pursuant to this Agreement solely because such Software System has been installed on or moved to a central processing unit or system which has a serial number, model number, or other identification different from that on which the Software System was originally installed.

APPENDIX A

Applicability and Nature of UCC Warranties

Although it is unclear whether software license arrangements
are subject to the UCC, as is discussed below, both the user and the 
vendor in a given transaction should be concerned with the implied 
 warranties of merchantability and fitness for a particular purpose 
that accompany a "sale of goods" covered by the UCC.\textsuperscript{17} The parties 
may even contractually agree to have the UCC apply to their 
transaction.

Before examining specific warranties found in software licensing 
agreements, it is important to discuss the question of whether 
the UCC is applicable to software licensing transactions. If it is, any 
disclaimers of warranties included in the licensing agreement are 
governed by UCC Article Two and the user has available to it all the 
warranties and remedies included therein, such as warranties of 
merchandability and of fitness for a particular purpose.

UCC Article Two applies to the sale of goods and the courts 
have not yet determined whether software is considered a "good" 
for UCC purposes. Since software consists of a series of instructions, it may be 
viewed as intangible and not subject to the UCC. When software is purchased in conjunction with hardware equipment, however, the courts generally view the acquisition in its entirety as an acquisition of a tangible system and find that Article Two governs the entire transaction.\textsuperscript{18} Similarly, Article Two applies to transactions where the hardware price includes programming services.\textsuperscript{19}

Moreover, as mentioned above, the UCC applies only to the sale of goods. Software licensing transactions may not be considered "sales" because a user generally acquires only the right to use the software while actual ownership of the software is retained by the vendor. Nonetheless, perpetual licenses more closely resemble a sale than do short-term licenses and are therefore more likely to be subject to the UCC for the same reasons that full pay-out leases are more likely to be subject to the UCC than are short-term operating leases.\textsuperscript{20}

For example, when user leases a system from either the manu-

\textsuperscript{17} See Uniform Commercial Code §§ 2-314, 2-315.
\textsuperscript{20} Gilburme, Licensing of Pre-existing Software Packages, in Illinois Institute for Continuing Legal Education, Seminar on Contracting for Computers and Related Products and Services.
facturer or a leasing company, the court must first determine whether the leasing arrangement is a "true lease" or a sale of equipment with the lessor receiving a security interest.\textsuperscript{21} If the lease is a true lease the rental charges are set at a specific rate to compensate lessor for the loss of the value of the product’s use over the term of the lease. In addition, title to the equipment remains with the lessor and any alleged malfunctions can be asserted as failure of consideration and a defense to further lease payments. Thus, user’s remedy against lessor is to withhold lease payments. This transaction would probably not be governed by the UCC.

On the other hand, if the lease is actually a sale with reservation of a security interest, total rental payments are approximately equal to lessor’s purchase price. In addition, title to the equipment passes to user and UCC Articles Two and Nine apply. Thus, any disclaimers of warranties included in the leasing agreements are governed by Article Two and user has available all the remedies included therein. Such a lease agreement usually contains a "hell or high water" clause making payments unconditional so that user must continue making lease payments regardless of a system breakdown. The user may have a remedy under the UCC for breach of warranty, but, as in \textit{Citicorp}, lessor usually disclaims all warranties. Thus, user’s only remedy may be against the manufacturer.

To determine whether a licensing transaction constitutes a sale for UCC purposes, one may be able to analogize licensing transactions to leasing transactions. The parties should beware that even if the UCC is found not to apply as a matter of law, the court may consider the UCC by way of analogy.\textsuperscript{22}

\textbf{APPENDIX B}

\textit{Selected Tax Issues Associated With Licensing}

\textbf{I. In General}

For income tax purposes, a user should decide on an appropriate procedure for reporting license fees and maintenance payments, e.g., whether the payments are to be expensed and deducted from gross income as such payments are made or amortized over a period of time. Maintenance and term license fees are frequently expensed as they are incurred by the users because the payments are made over a period of time and relate to the user’s use of the software.

\begin{itemize}
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Under perpetual license arrangements, on the other hand, the license fee is usually paid up front in one lump sum or in various percentage payments. Front end license fees may be expensed and deducted all at once (under certain circumstances) or amortized over a period of time.\footnote{P. Hoffman, The Software Legal Book, at pt. III, E-1 (1981).}

II. \textit{Investment Tax Credit}

According to the Internal Revenue Code ("I.R.C."), the Investment Tax Credit (ITC) is available only in connection with I.R.C. section 38 property which is defined as "tangible" property. Unfortunately, computer software is generally not eligible for the ITC because the IRS does not consider software to be tangible property, just as software may not be considered as "goods" under the UCC.\footnote{See supra app. A.} But if software and hardware are bundled together, the ITC may be claimed for the entire price of the system.\footnote{Hoffman, supra note 22, at pt. III, E-2.}

III. \textit{Sales and Use Tax}

While software is considered to be intangible for purposes of the ITC at the federal tax level, approximately thirty-six states currently consider software to be tangible and consequently subject to state sales and use taxes.\footnote{White & Vanecek, Taxpayer Beware! The Current State of Computer Software Taxation, 60 Taxes 373 (1982).} These states consider software to be a tangible item because vendors usually transport their product on some tangible media such as punched cards, tapes, or computer discs. Thus, vendors' machine-ready software that is not produced in a machine ready format may escape such taxes.\footnote{Id. at 374.}

To determine whether a particular form of software should be subject to state sales and use taxes, recent court decisions have applied the "essence of the transaction" test.\footnote{Id. at 376.} For instance, in a recent Illinois case the sale of computer software was held to be a transfer of intangible personal property exempt from Illinois use taxes because the substance ("essence") of the purchase was the information contained on computer tapes rather than the tapes themselves.\footnote{First Nat'l Bank v. Department of Revenue, 421 N.E.2d 175 (Sup. Ct. Ill. 1981).}

Not surprisingly, vendors and purchasers of computer software have been shocked when confronted with sales and use taxes on supposedly "tangible" software products, when that same software
is ineligible for the ITC because it is considered to be "intangible" property. Since these taxes may be substantial, software vendors and purchasers are somewhat concerned about the inequities between the federal and state classifications of software products.\(^{30}\)

In the case of software licensing, it is less clear than in the case of software purchase whether the licensing arrangement is subject to state sales and use taxes.\(^{31}\)

IV. Research and Development Tax Credits

The Economic Recovery Tax Act of 1981\(^ {32}\) may provide a direct tax credit for developers and purchasers of computer software. Designed to stimulate technology research activities, I.R.C. section 44F offers taxpayers a tax credit equal to twenty-five percent of any incremental increase in research and experimental expenditures during a statutorily defined base period. The IRS has issued proposed regulations in January of 1983 covering various points concerning the credit. As the credit applies to software development costs, Code section 44F refers to Code section 174 (covering expensing research and experimental costs) for definition of qualified research. The regulations under section 174 are currently being revised to clarify the treatment of computer software. An explanation of the proposed changes is as follows:

Under proposed regs,\(^ {33}\) the cost of developing computer software is not a research or experimental expenditure if the software's operational feasibility is not seriously in doubt. Likewise, the costs of modifying previously developed computer software programs, such as the costs of adapting an existing program to specific customer needs, or the costs of translating an existing program for use with other equipment, do not constitute research or experimental expenditures. But the programming costs for new or significantly improved computer software qualify. The determination of "new or significantly improved" will be based on the computer program itself rather than the end use of the program. For example, the costs of developing a program to perform economic analysis which involves only standard or well known programming techniques are not research or experimental expenditures even if the economic principles embodied in the program are novel. However, if the programming itself involves a significant risk that it cannot be written, the cost of developing the program are research or experimental expenditures regardless of

\(^{30}\) See White & Vanacek, supra note 26, at 373.

\(^{31}\) For a survey of state sales, use, and property taxes relating to data processing products, see R. Bigelow & H. Saltzberg, State Computer Tax Report (1982).


whether the economic principles or formulas embodies in the pro-
grams are novel.\textsuperscript{34}

Most users and developers of software who have made their
views known felt that these rules were both too exclusive and not
specific enough for deciding whether or not a development project is
qualified for the tax benefits offered by the Code. As a result of
these and other protests, the Treasury has reconsidered its position.
It has indicated that research and development credits would be
more available for software development than under the originally
proposed regulations. While new proposed regulations have not, as
of this writing, been released, the Treasury has suggested that
software developed by a business for its own internal management
purposes (e.g., accounting, order entry) should not qualify for the
credit, whereas innovative software, even if for in-house use (e.g.,
CAD/CAM programs) should qualify. The Treasury's statements in-
dicate that software developed for retail sale to the public should be
treated the same as developing new products in any other business,
to the extent those qualify for the credit.
