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# Accounting for the costs of computer software developed or obtained for internal use; Statement of position 98-1;

American Institute of Certified Public Accountants. Accounting Standards Executive Committee

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**STATEMENT OF  
POSITION 98-1**

**AICPA**

AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

*March 4, 1998*

**Accounting for the Costs of  
Computer Software Developed  
or Obtained for Internal Use**

*Issued by the  
Accounting Standards Executive Committee*

# NOTE

Statements of Position on accounting issues present the conclusions of at least two thirds of the Accounting Standards Executive Committee, which is the senior technical body of the Institute authorized to speak for the Institute in the areas of financial accounting and reporting. Statement on Auditing Standards No. 69, *The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles in the Independent Auditor's Report*, identifies AICPA Statements of Position that have been cleared by the Financial Accounting Standards Board as sources of established accounting principles in category *b* of the hierarchy of generally accepted accounting principles that it establishes. AICPA members should consider the accounting principles in this Statement of Position if a different accounting treatment of a transaction or event is not specified by a pronouncement covered by rule 203 of the AICPA Code of Professional Conduct. In such circumstances, the accounting treatment specified by the Statement of Position should be used, or the member should be prepared to justify a conclusion that another treatment better presents the substance of the transaction in the circumstances.

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# SUMMARY

This Statement of Position (SOP) provides guidance on accounting for the costs of computer software developed or obtained for internal use. The SOP requires the following:

- Computer software meeting the characteristics specified in this SOP is internal-use software.
- Computer software costs that are incurred in the preliminary project stage should be expensed as incurred. Once the capitalization criteria of the SOP have been met, external direct costs of materials and services consumed in developing or obtaining internal-use computer software; payroll and payroll-related costs for employees who are directly associated with and who devote time to the internal-use computer software project (to the extent of the time spent directly on the project); and interest costs incurred when developing computer software for internal use should be capitalized. Training costs and data conversion costs, except as noted in paragraph 21, should be expensed as incurred.
- Internal costs incurred for upgrades and enhancements should be expensed or capitalized in accordance with paragraphs 20-23. Internal costs incurred for maintenance should be expensed as incurred. Entities that cannot separate internal costs on a reasonably cost-effective basis between maintenance and relatively minor upgrades and enhancements should expense such costs as incurred.
- External costs incurred under agreements related to specified upgrades and enhancements should be expensed or capitalized in accordance with paragraphs 20-23. However, external costs related to maintenance, unspecified upgrades and enhancements, and costs under agreements that combine the costs of maintenance and unspecified upgrades and enhancements should be recognized in expense over the contract period on a straight-line basis unless another

systematic and rational basis is more representative of the services received.

- Impairment should be recognized and measured in accordance with the provisions of FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*.
- The capitalized costs of computer software developed or obtained for internal use should be amortized on a straight-line basis unless another systematic and rational basis is more representative of the software's use.
- If, after the development of internal-use software is completed, an entity decides to market the software, proceeds received from the license of the computer software, net of direct incremental costs of marketing, should be applied against the carrying amount of that software.

The SOP identifies the characteristics of internal-use software and provides examples to assist in determining when computer software is for internal use.

The SOP applies to all nongovernmental entities and is effective for financial statements for fiscal years beginning after December 15, 1998. The provisions of this SOP should be applied to internal-use software costs incurred in those fiscal years for all projects, including those projects in progress upon initial application of the SOP. Earlier application is encouraged in fiscal years for which annual financial statements have not been issued. Costs incurred prior to initial application of this SOP, whether capitalized or not, should not be adjusted to the amounts that would have been capitalized had this SOP been in effect when those costs were incurred.

# FOREWORD

The accounting guidance contained in this document has been cleared by the Financial Accounting Standards Board (FASB). The procedure for clearing accounting guidance in documents issued by the Accounting Standards Executive Committee (AcSEC) involves the FASB reviewing and discussing in public board meetings (a) a prospectus for a project to develop a document, (b) a proposed exposure draft that has been approved by at least ten of AcSEC's fifteen members, and (c) a proposed final document that has been approved by at least ten of AcSEC's fifteen members. The document is cleared if at least five of the seven FASB members do not object to AcSEC undertaking the project, issuing the proposed exposure draft or, after considering the input received by AcSEC as a result of the issuance of the exposure draft, issuing the final document.

The criteria applied by the FASB in their review of proposed projects and proposed documents include the following.

- a. The proposal does not conflict with current or proposed accounting requirements, unless it is a limited circumstance, usually in specialized industry accounting, and the proposal adequately justifies the departure.
- b. The proposal will result in an improvement in practice.
- c. The AICPA demonstrates the need for the proposal.
- d. The benefits of the proposal are expected to exceed the costs of applying it.

In many situations, prior to clearance, the FASB will propose suggestions, many of which are included in the documents.

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# Accounting for the Costs of Computer Software Developed or Obtained for Internal Use

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## Introduction and Background

1. The Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 86, *Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed*, in 1985. At that time, the FASB considered expanding the scope of that project to include costs incurred for the development of computer software for internal use. The FASB concluded, however, that accounting for the costs of software used internally was not a significant problem and, therefore, decided not to expand the scope of the project. The FASB stated that it recognized that at that time the majority of entities expensed all costs of developing software for internal use, and it was not convinced that the predominant practice was improper.
2. Because of the absence of authoritative literature that specifically addresses accounting for the costs of computer software developed or obtained for internal use and the growing magnitude of those costs, practice became diverse. Some entities capitalize costs of internal-use computer software, whereas some entities expense costs as incurred. Still other entities capitalize costs of purchased internal-use computer software and expense costs of internally developed internal-use computer software as incurred.
3. The staff of the Securities and Exchange Commission (SEC) and other interested parties have requested that standard setters develop authoritative guidance to eliminate the inconsistencies in practice. In a November 1994 letter, the Chief Accountant of the SEC suggested that the Emerging Issues Task Force (EITF) develop that guidance. However, the EITF and the Accounting Standards Executive Committee (AcSEC) agreed that AcSEC should develop the guidance.



4. AcSEC issued an exposure draft of a proposed Statement of Position (SOP), *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use*, on December 17, 1996. AcSEC received about 130 comment letters in response to the exposure draft.

## **Scope**

5. This SOP provides guidance on accounting by all non-governmental entities, including not-for-profit organizations, for the costs of computer software developed or obtained for internal use and provides guidance for determining whether computer software is for internal use.
6. This SOP clarifies that the costs of computer software developed or obtained are costs of either (a) software to be sold, leased, or otherwise marketed as a separate product or as part of a product or process, subject to FASB Statement No. 86; (b) software to be used in research and development, subject to FASB Statement No. 2, *Accounting for Research and Development Costs*, and FASB Interpretation No. 6, *Applicability of FASB Statement No. 2 to Computer Software*; (c) software developed for others under a contractual arrangement, subject to contract accounting standards; or (d) internal-use software, subject to this SOP. This SOP does not change any of the provisions in FASB Statement Nos. 86, 2, or FASB Interpretation No. 6.
7. Costs of computer software that is “sold, leased, or otherwise marketed as a separate product or as part of a product or process” are within the scope of FASB Statement No. 86. The Appendix of this SOP includes examples of computer software considered to be for internal use and thus not “part of a product or process.”
8. This SOP provides guidance on when costs incurred for internal-use computer software are and are not capitalized.
9. This SOP provides guidance on accounting for the proceeds of computer software developed or obtained for internal use that is marketed.

10. This SOP provides guidance on accounting for computer software that consists of more than one component or module. For example, an entity may develop an accounting software system containing three elements: a general ledger, an accounts payable subledger, and an accounts receivable subledger. In this example, each element might be viewed as a component or module of the entire accounting software system. The guidance in this SOP should be applied to individual components or modules.
11. Accounting for costs of reengineering activities, which often are associated with new or upgraded software applications, is not included within the scope of this SOP.<sup>1</sup>

## **Conclusions**

### **Characteristics of Internal-Use Computer Software**

12. For purposes of this SOP, internal-use software is software having the following characteristics.
  - a. The software is acquired, internally developed, or modified solely to meet the entity's internal needs.
  - b. During the software's development or modification, no substantive plan exists or is being developed to market the software externally.

A substantive plan to market software externally could include the selection of a marketing channel or channels with identified promotional, delivery, billing, and support activities. To be considered a substantive plan under this SOP, implementation of the plan should be reasonably possible. Arrangements providing for the joint development of software for mutual internal use (for example, cost-sharing arrangements) are not substantive plans to market software for purposes of this SOP. Similarly, routine market feasibility studies are not substantive plans to market software for purposes of this SOP.

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1. This SOP does not change the conclusions reached in Emerging Issues Task Force Issue No. 97-13, *Accounting for Costs Incurred in Connection with a Consulting Contract or an Internal Project That Combines Business Process Reengineering and Information Technology Transformation*, which requires that the costs of reengineering activities be expensed as incurred.

13. An entity must meet both characteristics in paragraph 12 for software to be considered for internal use.
14. An entity's past practices related to selling software may help determine whether the software is for internal use or is subject to a plan to be marketed externally. For example, an entity in the business of selling computer software often both uses and sells its own software products. Such a past practice of both using and selling computer software creates a rebuttable presumption that any software developed by that entity is intended for sale, lease, or other marketing, and thus is subject to the guidance in FASB Statement No. 86.
15. Computer software to be sold, leased, or otherwise marketed includes software that is part of a product or process to be sold to a customer and should be accounted for under FASB Statement No. 86. For example, software designed for and embedded in a semiconductor chip is included in the scope of FASB Statement No. 86 because it is an integral part of the product. By contrast, software for internal use, though it may be used in developing a product, is not part of or included in the actual product or service sold. If software is used by the vendor in the production of the product or providing the service but the customer does not acquire the software or the future right to use it, the software is covered by this SOP. For example, for a communications company selling telephone services, software included in a telephone switch is part of the internal equipment used to deliver a service but is not part of the product or service actually being acquired or received by the customer.
16. The Appendix provides examples of when computer software is and is not for internal use.

## **Stages of Computer Software Development**

17. The following table illustrates the various stages and related processes of computer software development.

<b>Preliminary Project Stage</b>	<b>Application Development Stage</b>	<b>Post-Implementation/ Operation Stage</b>
Conceptual formulation of alternatives	Design of chosen path, including software configuration and software interfaces	Training
Evaluation of alternatives		Application maintenance
Determination of existence of needed technology	Coding	
Final selection of alternatives	Installation to hardware	
	Testing, including parallel processing phase	

The SOP recognizes that the development of internal-use computer software may not follow the order shown above. For example, coding and testing are often performed simultaneously. Regardless, for costs incurred subsequent to completion of the preliminary project stage, the SOP should be applied based on the nature of the costs incurred, not the timing of their incurrence. For example, while some training may occur in the application development stage, it should be expensed as incurred as required in paragraphs 21 and 23.

## **Research and Development**

18. The following costs of internal-use computer software are included in research and development and should be accounted for in accordance with the provisions of FASB Statement No. 2:
  - a. Purchased or leased computer software used in research and development activities where the software does not have alternative future uses
  - b. All internally developed internal-use computer software<sup>2</sup> (including software developed by third parties, for example, programmer consultants) if (1) the software is a pilot project (that is, software of a nature similar to a pilot plant as noted in paragraph 9(h) of FASB Statement No. 2) or (2) the software is used in a particular research and development project, regardless of whether the software has alternative future uses

2. FASB Interpretation No. 6 excludes from research and development costs computer software related to an entity's selling and administrative activities.

## Capitalize or Expense

19. **Preliminary Project Stage.** When a computer software project is in the preliminary project stage, entities will likely—
  - a. Make strategic decisions to allocate resources between alternative projects at a given point in time. For example, should programmers develop a new payroll system or direct their efforts toward correcting existing problems in an operating payroll system?
  - b. Determine the performance requirements (that is, what it is that they need the software to do) and systems requirements for the computer software project it has proposed to undertake.
  - c. Invite vendors to perform demonstrations of how their software will fulfill an entity's needs.
  - d. Explore alternative means of achieving specified performance requirements. For example, should an entity make or buy the software? Should the software run on a mainframe or a client server system?
  - e. Determine that the technology needed to achieve performance requirements exists.
  - f. Select a vendor if an entity chooses to obtain software.
  - g. Select a consultant to assist in the development or installation of the software.
20. Internal and external costs incurred during the preliminary project stage should be expensed as they are incurred.
21. **Application Development Stage.** Internal and external costs incurred to develop internal-use computer software during the application development stage should be capitalized. Costs to develop or obtain software that allows for access or conversion of old data by new systems should also be capitalized. Training costs are not internal-use software development costs and, if incurred during this stage, should be expensed as incurred.
22. The process of data conversion from old to new systems may include purging or cleansing of existing data, reconciliation

or balancing of the old data and the data in the new system, creation of new/additional data, and conversion of old data to the new system. Data conversion often occurs during the application development stage. Data conversion costs, except as noted in paragraph 21, should be expensed as incurred.

23. ***Post-Implementation/Operation Stage.*** Internal and external training costs and maintenance costs should be expensed as incurred.
24. ***Upgrades and Enhancements.*** For purposes of this SOP, upgrades and enhancements are defined as modifications to existing internal-use software that result in additional functionality—that is, modifications to enable the software to perform tasks that it was previously incapable of performing. Upgrades and enhancements normally require new software specifications and may also require a change to all or part of the existing software specifications. In order for costs of specified upgrades and enhancements to internal-use computer software to be capitalized in accordance with paragraphs 25 and 26, it must be probable<sup>3</sup> that those expenditures will result in additional functionality.<sup>4</sup>
25. Internal costs incurred for upgrades and enhancements should be expensed or capitalized in accordance with paragraphs 20-23.<sup>5</sup> Internal costs incurred for maintenance should be expensed as incurred. Entities that cannot separate internal costs on a reasonably cost-effective basis between maintenance and relatively minor upgrades and enhancements should expense such costs as incurred.
26. External costs incurred under agreements related to specified upgrades and enhancements should be expensed or capitalized in accordance with paragraphs 20-23. (If maintenance is combined with specified upgrades and enhancements in a single contract, the cost should be allocated

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3. See paragraph 62 of this SOP for meaning of “probable.”

4. This SOP does not change the conclusions reached in Emerging Issues Task Force Issue No. 96-14, *Accounting for the Costs Associated with Modifying Computer Software for the Year 2000*, which requires that external and internal costs associated with modifying internal-use software currently in use for the Year 2000 be charged to expense as incurred. New internal-use software developed or obtained that replaces previously existing internal-use software should be accounted for in accordance with this SOP.

5. See footnote 4.

between the elements as discussed in paragraph 33 and the maintenance costs should be expensed over the contract period.) However, external costs related to maintenance, unspecified upgrades and enhancements, and costs under agreements that combine the costs of maintenance and unspecified upgrades and enhancements should be recognized in expense over the contract period on a straight-line basis unless another systematic and rational basis is more representative of the services received.

27. Capitalization of costs should begin when both of the following occur.
  - a. Preliminary project stage is completed.
  - b. Management, with the relevant authority, implicitly or explicitly authorizes and commits to funding a computer software project and it is probable<sup>6</sup> that the project will be completed and the software will be used to perform the function intended. Examples of authorization include the execution of a contract with a third party to develop the software, approval of expenditures related to internal development, or a commitment to obtain the software from a third party.
28. When it is no longer probable<sup>7</sup> that the computer software project will be completed and placed in service, no further costs should be capitalized, and guidance in paragraphs 34 and 35 on impairment should be applied to existing balances.
29. Capitalization should cease no later than the point at which a computer software project is substantially complete and ready for its intended use. For purposes of this SOP, computer software is ready for its intended use after all substantial testing is completed.
30. New software development activities should trigger consideration of remaining useful lives of software that is to be replaced. When an entity replaces existing software with new software, unamortized costs of the old software should be expensed when the new software is ready for its intended use.

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6. See paragraph 62 of this SOP for meaning of "probable."

7. See paragraph 62 of this SOP for meaning of "probable."

## Capitalizable Costs

31. Costs of computer software developed or obtained for internal use that should be capitalized include only the following:
  - a. External direct costs of materials and services consumed in developing or obtaining internal-use computer software (Examples of those costs include but are not limited to fees paid to third parties for services provided to develop the software during the application development stage, costs incurred to obtain computer software from third parties, and travel expenses incurred by employees in their duties directly associated with developing software.)
  - b. Payroll and payroll-related costs (for example, costs of employee benefits) for employees who are directly associated with and who devote time to the internal-use computer software project, to the extent of the time spent directly on the project (Examples of employee activities include but are not limited to coding and testing during the application development stage.)
  - c. Interest costs incurred while developing internal-use computer software (Interest should be capitalized in accordance with the provisions of FASB Statement No. 34, *Capitalization of Interest Cost*.)<sup>8</sup>

General and administrative costs and overhead costs should not be capitalized as costs of internal-use software.

32. Entities often license internal-use software from third parties. Though FASB Statement No. 13, *Accounting for Leases*, excludes licensing agreements from its scope, entities should analogize to that Statement when determining the asset acquired in a software licensing arrangement.

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8. Paragraph 17 of FASB Statement No. 34, *Capitalization of Interest Cost*, states, "If the enterprise suspends substantially all activities related to acquisition of the asset, interest capitalization shall cease until activities are resumed."



## **Multiple-Element Software Arrangements Included in Purchase Price**

33. Entities may purchase internal-use computer software from a third party. In some cases, the purchase price includes multiple elements, such as training for the software, maintenance fees for routine maintenance work to be performed by the third party, data conversion costs, reengineering costs, and rights to future upgrades and enhancements. Entities should allocate the cost among all individual elements. The allocation should be based on objective evidence of fair value of the elements in the contract, not necessarily separate prices stated within the contract for each element. Those elements included in the scope of this SOP should be accounted for in accordance with the provisions of this SOP.

### **Impairment**

34. Impairment should be recognized and measured in accordance with the provisions of FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. Paragraph 8 of FASB Statement No. 121 requires that assets should be grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. FASB Statement No. 121 guidance is applicable, for example, when one of the following occurs related to computer software being developed or currently in use.
- a. Internal-use computer software is not expected to provide substantive service potential.
  - b. A significant change occurs in the extent or manner in which the software is used or is expected to be used.
  - c. A significant change is made or will be made to the software program.
  - d. Costs of developing or modifying internal-use computer software significantly exceed the amount originally expected to develop or modify the software.
35. Paragraph 10 of FASB Statement No. 121 requires that “if the asset is not expected to provide any service potential to

the entity, the asset shall be accounted for as if abandoned or held for disposal in accordance with the provisions of paragraph 15 of [FASB Statement No. 121].” When it is no longer probable<sup>9</sup> that computer software being developed will be completed and placed in service, the asset should be reported at the lower of the carrying amount or fair value, if any, less costs to sell. The rebuttable presumption is that such uncompleted software has a fair value of zero.

Indications that the software may no longer be expected to be completed and placed in service include the following:

- a. A lack of expenditures budgeted or incurred for the project
- b. Programming difficulties that cannot be resolved on a timely basis
- c. Significant cost overruns
- d. Information has been obtained indicating that the costs of internally developed software will significantly exceed the cost of comparable third-party software or software products, so that management intends to obtain the third-party software or software products instead of completing the internally developed software
- e. Technologies are introduced in the marketplace, so that management intends to obtain the third-party software or software products instead of completing the internally developed software
- f. Business segment or unit to which the software relates is unprofitable or has been or will be discontinued

## **Amortization**

36. The costs of computer software developed or obtained for internal use should be amortized on a straight-line basis unless another systematic and rational basis is more representative of the software’s use.

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<sup>9</sup>. See paragraph 62 of this SOP for meaning of “probable.”

37. In determining and periodically reassessing the estimated useful life over which the costs incurred for internal-use computer software will be amortized, entities should consider the effects of obsolescence, technology, competition, and other economic factors. Entities should consider rapid changes that may be occurring in the development of software products, software operating systems, or computer hardware and whether management intends to replace any technologically inferior software or hardware. Given the history of rapid changes in technology, software often has had a relatively short useful life.
38. For each module or component of a software project, amortization should begin when the computer software is ready for its intended use, regardless of whether the software will be placed in service in planned stages that may extend beyond a reporting period. For purposes of this SOP, computer software is ready for its intended use after all substantial testing is completed. If the functionality of a module is entirely dependent on the completion of other modules, amortization of that module should begin when both that module and the other modules upon which it is functionally dependent are ready for their intended use.

### **Internal-Use Computer Software Marketed**

39. If, after the development of internal-use software is completed, an entity decides to market the software, proceeds received from the license of the computer software, net of direct incremental costs of marketing, such as commissions, software reproduction costs, warranty and service obligations, and installation costs, should be applied against the carrying amount of that software. No profit should be recognized until aggregate net proceeds from licenses and amortization have reduced the carrying amount of the software to zero. Subsequent proceeds should be recognized in revenue as earned.
40. If, during the development of internal-use software, an entity decides to market the software to others, the entity should follow FASB Statement No. 86. Amounts previously capitalized under this SOP should be evaluated at each balance sheet date in accordance with paragraph 10 of FASB

Statement No. 86. Capitalized software costs should be amortized in accordance with paragraph 8 of FASB Statement No. 86. A pattern of deciding to market internal-use software during its development creates a rebuttable presumption that any software developed by that entity is intended for sale, lease, or other marketing, and thus is subject to the guidance in FASB Statement No. 86.

## **Disclosures**

41. This SOP does not require any new disclosures; disclosure should be made in accordance with existing authoritative literature, including Accounting Principles Board (APB) Opinion No. 12, *Disclosure of Depreciable Assets and Depreciation*; APB Opinion No. 22, *Disclosure of Accounting Policies* (for example, amortization methods); FASB Statement Nos. 2 and 121; and SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*.

## **Effective Date and Transition**

42. This SOP is effective for financial statements for fiscal years beginning after December 15, 1998, and should be applied to internal-use computer software costs incurred in those fiscal years for all projects, including those projects in progress upon initial application of this SOP. Earlier application is encouraged in fiscal years for which annual financial statements have not been issued.
43. Costs incurred prior to initial application of this SOP, whether capitalized or not, should not be adjusted to the amounts that would have been capitalized had this SOP been in effect when those costs were incurred. However, the provisions of this SOP concerning amortization and impairment should be applied to any unamortized costs capitalized prior to initial application of this SOP that continue to be reported as assets after the effective date. In accordance with paragraph 33 of APB Opinion No. 20, *Accounting Changes*, the effect on income before extraordinary items, net income, and related per share amounts of the current period should be disclosed for the change in accounting.

44. Initial application of this SOP should be as of the beginning of the fiscal year in which the SOP is first adopted (that is, if the SOP is adopted prior to the effective date and during an interim period other than the first interim period, all prior interim periods of that fiscal year should be restated).

The provisions of this Statement need not be applied to immaterial items.

## **Basis for Conclusions**

### **Characteristics of Internal-Use Computer Software**

45. AcSEC recognizes that entities may develop computer software for internal use and also plan to sell, lease, or otherwise market the software to recover some costs. AcSEC believes that the presence of a substantive plan to market software externally before or during software development indicates an intent to sell, lease, or otherwise market software, which requires accounting prescribed by FASB Statement No. 86. AcSEC believes that it is impractical to allocate costs between internal-use software and software to be marketed.
46. AcSEC considered whether one of the characteristics of internal-use computer software should be that during the software's development, no substantive plan or *intent* to market the software externally exists. AcSEC decided that it could not provide operational guidance to help entities define intent. For example, many entities will consider opportunities to recover some of the software development costs through subsequent sales of the product. AcSEC believes that it cannot provide guidance to distinguish between a true intent to market software and routine inquiries and studies about the possibility of recovering some costs.
47. Because FASB Statement No. 86 does not define "part of a product or process," many entities have difficulty determining whether computer software is for internal use and

subject to the SOP or “part of a product or process” and subject to the accounting prescribed by FASB Statement No. 86. A FASB staff article (which Statement on Auditing Standards No. 69, *The Meaning of Present Fairly in Accordance With Generally Accepted Accounting Principles in the Independent Auditor’s Report*, subordinates to an SOP) *Computer Software: Guidance on Applying Statement No. 86* that appeared in a 1986 FASB Status Report attempted to clarify that term as follows: “Indications that the software in question falls under the Statement’s scope include the dependence of the company on the software to provide the service. In other words, could the company earn revenue from providing the service without the software? Would the service be as timely or accurate without the software? If the answer to any of these questions is no, that may indicate that the software is part of a product or process and is included in the scope of Statement No. 86.”

48. In this SOP, AcSEC provides what it believes to be operational guidance that will help entities determine if computer software is for internal use. AcSEC believes that the distinction can be based on what the customer is buying. If the customer is acquiring the software or the future right to use it, the costs of that software are accounted for in accordance with the provisions of FASB Statement No. 86. However, if the software is used by the vendor in production of the product or in providing the service but the customer does not acquire the software or the future right to use it, the software is for internal use. The Appendix provides examples of when computer software is and is not for internal use.
49. AcSEC believes that the guidance in this SOP should be applied at the component or module level. One computer software project may result in several different working modules, which with appropriate software interfaces can be used independently of other modules. AcSEC analogized to an entity that constructs a building complex. Though several buildings are ultimately constructed, each building is an asset and may function without the others.

## Research and Development

50. Some respondents to the exposure draft believe that the costs of computer software developed or obtained for internal use should be charged to expense when incurred as research and development until technological feasibility has been established for the software. They believe that, like the costs of computer software to be sold, leased, or otherwise marketed, the costs of internal-use computer software are within the scope of paragraph 9(i) of FASB Statement No. 2, which states that “engineering activity required to advance the design of a product to the point that it meets specific functional and economic requirements and is ready for manufacture,” and therefore those costs should be included within research and development.
51. AcSEC considered whether this SOP should require entities to meet some technological feasibility threshold before they could capitalize costs of internal-use computer software. AcSEC decided and most respondents to the exposure draft agreed that technological feasibility should not apply to this SOP. AcSEC reasoned that the technological feasibility criteria applied in FASB Statement No. 86 to software that is sold, leased, or otherwise marketed were appropriate to an inventory model. That inventory model includes an implicit marketability test, a notion that is not applicable to this SOP.
52. FASB Interpretation No. 6 states that the costs of computer software that is developed or obtained for use in an entity’s selling and administrative activities are not research and development costs. In addition, it states that, “costs incurred to purchase or lease computer software developed by others are not research and development costs under FASB Statement No. 2 unless the software is for use in research and development activities.” Further, FASB Interpretation No. 6 states, “costs incurred by an enterprise in developing computer software internally for use in its research and development activities are research and development costs . . . ,” regardless of whether the software has alternative future uses.
53. AcSEC also considered the guidance of paragraphs 9(h) and 10(h) of FASB Statement No. 2 to determine whether

other costs of internal-use software are excluded from research and development. Paragraph 10(h) of FASB Statement No. 2 states that “activity, including design and construction engineering, related to the construction, relocation, re-arrangement, or start-up of facilities or equipment other than (1) pilot plants and (2) facilities or equipment whose sole use is for a particular research and development project” are excluded from research and development.

54. Because of the guidance in FASB Statement No. 2 and FASB Interpretation No. 6, AcSEC concluded that not all internal-use software costs are research and development costs (see paragraph 52). However, AcSEC evaluated the process of developing internal-use software within the context of FASB Statement No. 2 because that statement is either directly relevant or is a reasonable basis for determining which costs of internal-use software development activities should be expensed. Consistent with FASB Statement No. 2, AcSEC did not specify the income statement classifications of expensed internal-use software development costs.
55. Paragraphs 9(c) and 9(d), respectively, of FASB Statement No. 2 include “conceptual formulation and design of possible product or process alternatives” and “testing in search for or evaluation of product or process alternatives” as examples of activities that are research and development and therefore are expensed as incurred. AcSEC believes paragraphs 9(c) and 9(d) are relevant to the process of developing internal-use computer software. AcSEC believes that as part of these activities an entity will determine whether the needed technology exists. If the technology does not exist, then research and development-type activities have not yet been completed, and therefore those costs should be expensed as incurred.
56. AcSEC also believes that development risks associated with creating internal-use computer software are conceptually no different from development risks associated with creating other assets such as high-tech automated plants. Entities, at the start of both kinds of projects, often expect that existing technology will allow the entity to complete projects that will provide future benefits.



## Capitalize or Expense

57. About two-thirds of the respondents to the exposure draft believe that the internal and external costs of computer software developed or obtained for internal use should be reported as assets. However, certain representatives of the financial statement user community oppose capitalization of internal costs incurred to develop or obtain internal-use software.
58. Those users and some others oppose the exposure draft's provisions for capitalization because they believe that the benefits of capitalizing internal costs are limited. They believe that capitalized internal costs related to developing or obtaining internal-use software are often unrelated to the software's actual value and that such capitalized costs are often irrelevant in the investment and credit evaluation process. In addition, some who oppose the exposure draft believe that external costs of developing or obtaining internal-use software are a more reliable measure of the software asset than internal costs.
59. Some respondents to the exposure draft believe that costs of computer software developed or obtained for internal use should be expensed as incurred. They believe that such costs should not be capitalized because they do not result in demonstrable probable future economic benefits. They believe that capitalization would result in assets that have arbitrary amortization periods. They cite paragraph 148 of FASB Concepts Statement No. 6, *Elements of Financial Statements*, which states that some "costs are also recognized as expenses in the period in which they are incurred because the period to which they otherwise relate is indeterminable or not worth the effort to determine."
60. Some respondents to the exposure draft believe that capitalizing the costs of computer software developed or obtained for internal use frequently results in a subsequent writeoff of those costs when they are eventually determined to not be recoverable. Thus, they believe that readers of financial statements can be misled by the initial capitalization and subsequent writeoff of those costs.

61. AcSEC considered all of these views. AcSEC believes that entities develop or obtain internal-use computer software often for the same end-purposes that they develop or obtain other assets. Examples are to reduce costs, operate more efficiently, improve internal controls, service customers better, and gain competitive advantages.
62. Paragraph 25 in FASB Concepts Statement No. 6 defines assets as “*probable* future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.” Footnote 18 to FASB Concepts Statement No. 6 states that “probable is used with its general meaning, rather than in a specific accounting or technical sense, . . . and refers to that which can reasonably be expected or believed on the basis of available evidence or logic but is neither certain nor proved . . . .” Paragraph 26 states: “An asset has three essential characteristics: (a) it embodies a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflows, (b) a particular entity can obtain the benefit and control others’ access to it, and (c) the transaction or other event giving rise to the entity’s right to or control of the benefit has already occurred.”
63. Paragraph 63 in FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*, sets forth the following criteria that should be met to recognize an item in the financial statements:
- *Definitions*—The item meets the definition of an element of financial statements.
  - *Measurability*—It has a relevant attribute measurable with sufficient reliability.
  - *Relevance*—The information about it is capable of making a difference in user decisions.
  - *Reliability*—The information is representationally faithful, verifiable, and neutral.
64. Some proponents of capitalization of internal-use software observe that paragraph 24 of APB Opinion 17, *Intangible Assets*, requires that entities capitalize acquired intangible assets. Paragraph 24 also states that “costs of developing,

maintaining, or restoring intangible assets which are not specifically identifiable, have indeterminate lives, or are inherent in a continuing business and related to an enterprise as a whole—such as goodwill—should be deducted from income when incurred.” AcSEC believes that the costs of computer software developed or obtained for internal use are specifically identifiable, have determinate lives, relate to probable future economic benefits (FASB Concepts Statement No. 6), and meet the recognition criteria of definitions, measurability, relevance, and reliability (FASB Concepts Statement No. 5).

65. AcSEC decided that it was not necessary to characterize computer software as either intangible assets or tangible assets when similar characterizations have not been made for most other assets.
66. One of the characteristics of an asset in FASB Concepts Statement No. 6 is that it must contribute directly or indirectly to future net cash inflows, thus providing probable future economic benefits. AcSEC recognizes that the specific future economic benefits related to the costs of computer software will sometimes be difficult to identify. However, AcSEC believes that this is also true for some other assets. For example, computer hardware or furniture used in back-office operations are indirectly related to future benefits. Likewise, corporate office facilities do not result in identifiable future benefits, but the facilities do support the operations of the company.
67. AcSEC also recognizes that costs of computer software developed or obtained for internal use reported as assets may be subsequently written-off due to lack of adequate funding or lack of management’s continued commitment to a project. However, AcSEC believes similar changes in direction also occur for long-lived-asset projects. Regardless, AcSEC has established guidance to determine when capitalization should cease and when impairment should be recognized and measured.
68. ***Preliminary Project Stage.*** AcSEC believes that activities performed during the preliminary project stage of development for internal-use software are analogous to research

and development activities, and costs incurred during this stage should be expensed as they are incurred.

69. ***Application Development Stage.*** AcSEC believes that software development activities performed during the application development stage create probable future economic benefits. Therefore, software development costs incurred during this stage should be capitalized.
70. AcSEC believes that paragraph 24 of APB Opinion No. 17 applies to the costs of data conversion. Therefore, AcSEC believes that data conversion costs, as discussed in paragraph 22, should be expensed as they are incurred. However, AcSEC also believes that computer software developed or obtained for old and new systems interface is internal-use software that is subject to the guidance in this SOP.
71. ***Post-Implementation/Operation Stage.*** AcSEC believes that training costs are not software development costs and should be expensed as they are incurred because entities do not control the continued employment of the trained employees, are not able to identify the specific future period benefitted, and amortization periods would be arbitrary.
72. A number of respondents to the exposure draft said that they could not distinguish between internal costs of maintenance and upgrades/enhancements; many of those respondents requested further guidance from AcSEC. AcSEC decided that it could not provide examples that would adequately distinguish between all possible activities related to maintenance and upgrades/enhancements. As a result, AcSEC concluded that entities that cannot separate internal costs on a reasonably cost-effective basis between maintenance and relatively minor upgrades and enhancements should expense such costs as incurred.
73. AcSEC acknowledges that SOP 97-2, *Software Revenue Recognition*, defines an upgrade and enhancement, in part, as an extension of useful life. AcSEC concluded that, from the perspective of the user of the software, solely extending the software's useful life without adding additional functionality is a maintenance activity rather than an activity for which the costs should be capitalized. Accordingly, AcSEC's

criteria for determining capitalizable upgrades and enhancements focus on providing additional functionality.

74. AcSEC believes and most respondents to the exposure draft agree that entities should not have the option to expense or capitalize costs of computer software developed or obtained for internal use as those costs are incurred. FASB Concepts Statement No. 2, *Qualitative Characteristics of Accounting Information*, states the following:

Comparability between enterprises and consistency in the application of methods over time increases the informational value of comparisons of relative economic opportunities or performance. The significance of information, especially quantitative information, depends to a great extent on the user's ability to relate it to some benchmark.

75. Capitalization should begin when (a) the preliminary project stage is completed and (b) management, with the relevant authority, implicitly or explicitly authorizes and commits to funding a computer software project and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization should cease when it is no longer probable that the computer software project will be completed and placed in service. Capitalization should cease no later than the point at which a computer software project is substantially complete and ready for its intended use. *Probable* does not require absolute certainty. *Probable* is used in the same context as it is in FASB Concepts Statement No. 6, which states that "probable is used with its general meaning, rather than in a specific accounting or technical sense, . . . and refers to that which can reasonably be expected or believed on the basis of available evidence or logic but is neither certain nor proved . . . ."
76. AcSEC used paragraph 18 of FASB Statement No. 34 as a basis for concluding that capitalization should cease no later than the point at which a computer software project is substantially complete and ready for its intended use.
77. AcSEC considered whether it should provide guidance to limit the amount of costs that could be capitalized to the amount an entity would spend to purchase a viable alternative software

product from a third party. AcSEC concluded that it could not provide practicable guidance other than the ability to recover the capitalized costs as discussed in FASB Statement No. 121. AcSEC believes that many entities will not be able to identify a third-party software product that is comparable to the entity's internal-use software. In addition, AcSEC believes that many entities would incur undue costs in trying to determine what is a viable alternative software product.

78. AcSEC believes that it would be desirable for the costs of internally developed computer software (whether developed by employees or per diem independent contractors) that are capitalized to be accounted for no differently than the capitalized costs of purchased software (whether the software is obtained retail or developed by outside consultants for a flat fee or price). AcSEC acknowledges, however, that certain costs of internally developed software will be expensed as research and development whereas a portion of the research and development costs incurred by a third party will be capitalized by the purchasing entity because the third party's research and development costs are implicitly part of the acquisition price of the software. AcSEC noted that similar differences exist elsewhere; for example, the costs of acquiring a patent are usually capitalized and the costs of developing a patent are usually expensed as incurred.
79. AcSEC believes that users of financial information will find the results of this SOP useful. AcSEC believes that the marketplace inherently considers the technological capabilities, including software, of many entities when it establishes market values. This SOP provides a reasonable methodology to record the costs of internal-use software. In addition, AcSEC believes that the disclosures required by existing authoritative literature are sufficient to help users make informed decisions.

## **Capitalizable Costs**

80. AcSEC used SOP 93-7, *Reporting on Advertising Costs*, and FASB Statement No. 91, *Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases*, as a basis for

determining the kinds of costs of computer software developed or obtained for internal use that should be included in amounts reported as assets. AcSEC recognizes that the costs of some activities, such as allocated overhead, may be part of the overall cost of assets, but it excluded such costs because it believes that, as a practical matter, costs of accumulating and assigning overhead to software projects would generally exceed the benefits that would be derived from a "full costing" accounting approach. AcSEC considered that costing systems for inventory and plant construction activities, while sometimes complex, were necessary costs given the routine activities that such systems support. Overhead costs associated with a particular internal-use software development project could be even more complex to measure than production overhead and, as they most often represent an allocation among capitalizable and expensed functions, may not be sufficiently reliable. Moreover, certain users commented that they believe that overhead costs had little relationship to the value of software. In light of such apparently high costs, modest benefits, and the view of some users that such costs should be expensed, AcSEC chose to analogize to advertising costs and FASB Statement No. 91 and to require such costs to be expensed as incurred.

### **Multiple-Element Software Arrangements Included in Purchase Price**

81. This SOP requires that, when a software arrangement includes multiple elements, entities should estimate the fair value of those multiple elements and exclude the fair value of the appropriate elements from the capitalized cost of the software. This approach is consistent with the treatment of executory costs that are included in a lease payment to a lessor, but which are not specified in the lease agreement. Paragraph 10 of FASB Statement No. 13, *Accounting for Leases*, requires the lessee to make an estimate of the executory costs and exclude that amount from the minimum lease payments. The treatment of the costs of the multiple elements specified here is consistent with those provisions.

82. In addition, AcSEC believes that the guidance related to recognizing combined maintenance and unspecified upgrade/enhancement fees over the contract period is consistent with paragraph 3 in FASB Technical Bulletin No. 90-1, *Accounting for Separately Priced Extended Warranty and Product Maintenance Contracts*.
83. The SOP requires that entities allocate costs based on relative fair values. AcSEC decided that the SOP should be consistent with SOP 97-2, *Software Revenue Recognition*, though vendor-specific information is not as relevant to this SOP.

## **Impairment**

84. AcSEC considered whether there were any alternatives to following FASB Statement No. 121 for impairment of internal-use computer software. AcSEC concluded that internal-use computer software is a long-lived asset covered by FASB Statement No. 121.
85. Paragraphs 7, 8, 10, and 15 of FASB Statement No. 121 are the basis for the guidance in this SOP on accounting for internal-use computer software that is not expected to provide substantive future service potential to an entity.
86. AcSEC concluded that when it is no longer probable that computer software being developed will be completed and placed in service, the asset should be reported at the lower of carrying amount or fair value, if any, less costs to sell, in accordance with FASB Statement No. 121. AcSEC believes that uncompleted internal-use computer software is not likely to have any fair value (measured in accordance with paragraph 7 of FASB Statement No. 121).
87. A number of respondents to the exposure draft requested that AcSEC provide more guidance and/or examples of how to recognize and measure impairment of internal-use computer software. AcSEC concluded that there are broader implications to this request and that if further guidance on impairment is to be provided, it should be provided by the FASB.



## **Amortization**

88. AcSEC used Accounting Research Bulletin No. 43, *Restatement and Revision of Accounting Research Bulletins*, chapter 9, section C, and APB Opinion 17 as a basis for its conclusions on amortization. AcSEC decided not to specify a maximum amortization period because each entity is better able to determine an appropriate useful life.

## **Internal-Use Computer Software Marketed**

89. The SOP requires that entities use the cost recovery method of accounting for internal-use computer software subsequently marketed. AcSEC believes that this method will provide a reasonable reporting outcome for instances in which enterprises find that internally developed software can meet a market demand.

## **Disclosures**

90. In the spirit of minimizing less relevant disclosures, AcSEC decided not to include any new disclosures in the exposure draft (though entities are required to follow disclosure requirements set forth in existing authoritative literature). AcSEC continues to believe that existing authoritative literature requires adequate disclosures to help meet financial statement user needs.

## **Effective Date and Transition**

91. AcSEC believes that the transition guidance in the SOP should be comparable to that contained in FASB Statement No. 86. Some enterprises that develop or purchase software for internal use currently expense those costs as incurred. AcSEC believes that the costs of developing the information that would be necessary to determine the amounts that would be capitalized if this SOP were to be applied retroactively would exceed the benefits retroactive application might offer and that such a retroactive determination should not be made. However, AcSEC decided to permit but not require application in financial statements for a fiscal year for which annual financial statements have not been issued. AcSEC further concluded

that costs capitalized before the application of this SOP should be subject to the impairment and amortization provisions in this SOP, but should not otherwise be adjusted to an amount that would have been capitalized had this SOP been applied. Amortization and impairment of previously capitalized costs in accordance with the provisions of this SOP should result in an acceptable level of comparability and understandability.

92. AcSEC considered whether it should provide materiality thresholds to determine when an entity should follow the guidance in this SOP. AcSEC decided not to do so because it believes an entity can best determine the materiality of internal-use computer software costs in its individual circumstances.

# APPENDIX

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## Examples

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### **Examples Illustrating When Computer Software Is for Internal Use**

1. A manufacturing entity purchases robots and customizes the software that the robots use to function. The robots are used in a manufacturing process that results in finished goods.
2. An entity develops software that helps it improve its cash management, which may allow the entity to earn more revenue.
3. An entity purchases or develops software to process payroll, accounts payable, and accounts receivable.
4. An entity purchases software related to the installation of an online system used to keep membership data.
5. A travel agency purchases a software system to price vacation packages and obtain airfares.
6. A bank develops software that allows a customer to withdraw cash, inquire about balances, make loan payments, and execute wire transfers.
7. A mortgage loan servicing entity develops or purchases computer software to enhance the speed of services provided to customers.
8. A telecommunications company develops software to run its switches that are necessary for various telephone services such as voice mail and call forwarding.
9. An entity is in the process of developing an accounts receivable system. The software specifications meet the company's internal needs and the company did not have a marketing plan before or during the development of the software. In addition, the company has not sold any of its internal-use software in the past. Two years after

completion of the project, the company decided to market the product to recoup some or all of its costs.

10. A broker-dealer entity develops a software database and charges for financial information distributed through the database.
11. An entity develops software to be used to create components of music videos (for example, the software used to blend and change the faces of models in music videos). The entity then sells the final music videos, which do not contain the software, to another entity.
12. An entity purchases software to computerize a manual catalog and then sells the manual catalog to the public.
13. A law firm develops an intranet research tool that allows firm members to locate and search the firm's databases for information relevant to their cases. The system provides users with the ability to print cases, search for related topics, and annotate their personal copies of the database.

### **Examples Illustrating When Computer Software Is Not for Internal Use**

14. An entity sells software required to operate its products, such as robots, electronic game systems, video cassette recorders, automobiles, voice-mail systems, satellites, and cash registers.
15. A pharmaceutical company buys machines and writes all of the software that allows the machines to function. The pharmaceutical company then sells the machines, which help control the dispensation of medication to patients and help control inventory, to hospitals.
16. A semiconductor entity develops software embedded in a microcomputer chip used in automobile electronic systems.
17. An entity purchases software to computerize a manual catalog and then sells the computer version and the related software to the public.
18. A software company develops an operating system for sale and for internal use. Though the specifications of the software

meet the company's internal needs, the company had a marketing plan before the project was complete. In addition, the company has a history of selling software that it also uses internally and the plan has a reasonable possibility of being implemented.

19. An entity is developing software for a point-of-sale system. The system is for internal use; however, a marketing plan is being developed concurrently with the software development. The plan has a reasonable possibility of being implemented.
20. A telecommunications entity purchases computer software to be used in research and development activities.
21. An entity incurs costs to develop computer software for another entity under a contract with that other entity.

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