Statement of Financial Accounting Standards No. 86

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FAS86 Summary

Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed

August 1985

Financial Accounting Standards Board
of the Financial Accounting Foundation
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Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed

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FAS 86: Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed

FAS 86 Summary

This Statement specifies the accounting for the costs of computer software to be sold, leased, or otherwise marketed as a separate product or as part of a product or process. It applies to computer software developed internally and to purchased software. This FASB project was undertaken in response to an AICPA Issues Paper, "Accounting for Costs of Software for Sale or Lease," and an accounting moratorium imposed by the Securities and Exchange Commission precluding changes in accounting policies related to computer software costs pending FASB action.

This Statement specifies that costs incurred internally in creating a computer software product shall be charged to expense when incurred as research and development until technological feasibility has been established for the product. Technological feasibility is established upon completion of a detail program design or, in its absence, completion of a working model. Thereafter, all software production costs shall be capitalized and subsequently reported at the lower of unamortized cost or net realizable value. Capitalized costs are amortized based on current and future revenue for each product with an annual minimum equal to the straight-line amortization over the remaining estimated economic life of the product.

This Statement is applicable, on a prospective basis, for financial statements for fiscal years beginning after December 15, 1985. The conclusions reached in this Statement change the predominant practice of expensing all costs of developing and producing a computer software product.

INTRODUCTION

1. This project was undertaken in response to requests by the Securities and Exchange Commission (SEC) and the Accounting Standards Executive Committee (AcSEC) of the American Institute of Certified Public Accountants (AICPA) to clarify the accounting for the costs of internally developed and produced computer software to be sold, leased, or otherwise marketed. They indicated that existing accounting pronouncements contain only general

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guidance that has been interpreted inconsistently.

SCOPE

2. This Statement establishes standards of financial accounting and reporting for the costs of computer software to be sold, leased, or otherwise marketed as a separate product or as part of a product or process, whether internally developed and produced or purchased. It identifies the costs incurred in the process of creating a software product that are research and development costs and those that are production costs to be capitalized, and it specifies amortization, disclosure, and other requirements. As used in this Statement, the terms *computer software product*, *software product*, and *product* encompass a computer software program, a group of programs, and a **product enhancement**.[1] This Statement does not address the accounting and reporting of costs incurred for computer software created for internal use or for others under a contractual arrangement.

STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING

Research and Development Costs of Computer Software

3. All costs incurred to establish the technological feasibility of a computer software product to be sold, leased, or otherwise marketed are research and development costs. Those costs shall be charged to expense when incurred as required by FASB Statement No. 2, *Accounting for Research and Development Costs*.

4. For purposes of this Statement, the technological feasibility of a computer software product is established when the enterprise has completed all planning, designing, **coding**, and **testing** activities that are necessary to establish that the product can be produced to meet its design specifications including functions, features, and technical performance requirements. At a minimum, the enterprise shall have performed the activities in either (a) or (b) below as evidence that technological feasibility has been established:

a. If the process of creating the computer software product includes a **detail program design**:
   (1) The **product design** and the detail program design have been completed, and the enterprise has established that the necessary skills, hardware, and software technology are available to the enterprise to produce the product.
   (2) The completeness of the detail program design and its consistency with the product design have been confirmed by documenting and tracing the detail program design to product specifications.
   (3) The detail program design has been reviewed for high-risk development issues (for

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example, novel, unique, unproven functions and features or technological innovations), and any uncertainties related to identified high-risk development issues have been resolved through coding and testing.

b. If the process of creating the computer software product does not include a detail program design with the features identified in (a) above:
   (1) A product design and a **working model** of the software product have been completed.
   (2) The completeness of the working model and its consistency with the product design have been confirmed by testing.

Production Costs of Computer Software

5. Costs of producing **product masters** incurred subsequent to establishing technological feasibility shall be capitalized. Those costs include coding and testing performed subsequent to establishing technological feasibility. Software production costs for computer software that is to be used as an integral part of a product or process shall not be capitalized until both (a) technological feasibility has been established for the software and (b) all research and development activities for the other components of the product or process have been completed.

6. Capitalization of computer software costs shall cease when the product is available for general release to customers. Costs of **maintenance** and **customer support** shall be charged to expense when related revenue is recognized or when those costs are incurred, whichever occurs first.

Purchased Computer Software

7. The cost of purchased computer software to be sold, leased, or otherwise marketed that has no alternative future use shall be accounted for the same as the costs incurred to develop such software internally, as specified in paragraphs 3-6. If that purchased software has an alternative future use, the cost shall be capitalized when the software is acquired and accounted for in accordance with its use.

Amortization of Capitalized Software Costs

8. Capitalized software costs shall be amortized on a product-by-product basis. The annual amortization shall be the greater of the amount computed using (a) the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product or (b) the straight-line method over the remaining estimated economic life of the product including the period being reported on. Amortization shall start when the product is available for general release to customers.

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Inventory Costs

9. The costs incurred for duplicating the computer software, documentation, and training materials from the product masters and for physically packaging the product for distribution shall be capitalized as inventory on a unit-specific basis and charged to cost of sales when revenue from the sale of those units is recognized.

Evaluation of Capitalized Software Costs

10. At each balance sheet date, the unamortized capitalized costs of a computer software product shall be compared to the net realizable value of that product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset shall be written off. The net realizable value is the estimated future gross revenues from that product reduced by the estimated future costs of completing and disposing of that product, including the costs of performing maintenance and customer support required to satisfy the enterprise's responsibility set forth at the time of sale. The reduced amount of capitalized computer software costs that have been written down to net realizable value at the close of an annual fiscal period shall be considered to be the cost for subsequent accounting purposes, and the amount of the write-down shall not be subsequently restored.

Disclosures

11. The following shall be disclosed in the financial statements:

a. Unamortized computer software costs included in each balance sheet presented
b. The total amount charged to expense in each income statement presented for amortization of capitalized computer software costs and for amounts written down to net realizable value.

12. The disclosure requirements for research and development costs in Statement 2 apply to the research and development costs incurred for a computer software product to be sold, leased, or otherwise marketed.

Amendments to Other Pronouncements

13. The following sentence in paragraph 31 of Statement 2 is deleted:

> For example, efforts to develop a new or higher level of computer software capability intended for sale (but not under a contractual arrangement) would be a research and development activity encompassed by this Statement.

14. The following portions of FASB Interpretation No. 6, *Applicability of FASB Statement No. 2 to Computer Software*, are deleted:

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a. The sentence in paragraph 3 that states:

> For example, efforts to develop a new or higher level of computer software capability intended for sale (but not under a contractual arrangement) would be a research and development activity encompassed by this Statement.

b. The phrase in the first sentence of paragraph 6 that states:

> or as a product or process to be sold, leased, or otherwise marketed to others for their use

c. Paragraphs 7 and 9
d. The two sentences in paragraph 8 that state:

> Developing or significantly improving a product or process that is intended to be sold, leased, or otherwise marketed to others is a research and development activity (see paragraph 8 of Statement 2). Similarly, developing or significantly improving a process whose output is a product that is intended to be sold, leased, or otherwise marketed to others is a research and development activity.

15. This Statement supersedes FASB Technical Bulletin No. 79-2, *Computer Software Costs*.

Effective Date and Transition

16. This Statement shall be effective for financial statements for fiscal years beginning after December 15, 1985 and shall be applied to costs incurred in those fiscal years for all projects including those in progress upon initial application of this Statement. Earlier application in annual financial statements that have not previously been issued is permitted.

17. Costs incurred prior to initial application of this Statement, whether capitalized or not, shall not be adjusted to the amounts that would have been capitalized if this Statement had been in effect when those costs were incurred. However, the provisions of paragraphs 8 (amortization), 10 (net realizable value test), and 11 (disclosures) of this Statement shall be applied to any unamortized costs capitalized prior to initial application of this Statement that continue to be reported as assets after the effective date.

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

This Statement was adopted by the affirmative votes of five members of the Financial Accounting Standards Board. Messrs. Kirk and Mosso dissented.

Mr. Kirk and Mr. Mosso dissent from this Statement because (a) it unduly restricts

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capitalization of software costs, (b) it extends the research and development classification of Statement 2 to a major class of routine production activities, and (c) it permits significantly different amounts of capitalization depending upon a company's choice of production methods.

In discussing the first point, the requirement in this Statement that either a detail program design or a working model be completed before capitalization can begin is likely to result in expensing most computer software costs, even though software is a significant, and often the only, revenue-generating asset of many companies. Assessing the probability of future benefits from computer software is difficult in the software industry, but no more difficult than in some tangible output industries such as fashion clothing and oil and gas drilling, or even in other creative process industries such as motion pictures. In each of these cases, capitalization of costs is accepted despite the inherent uncertainties.

The second point is related. This Statement sets the stage for extending the reach of Statement 2, with its mandatory expensing requirement, to a broad sweep of routine production activities because it assigns the bulk of computer programming activities (detail program design, coding, and testing) to the classification of research and development. Certainly, much research and development-type activity does take place in the computer software industry. However, most detail program design and coding activities are not discovery- or design-oriented in the sense of Statement 2; they are just the meticulous execution of a plan—skilled craftsmen applying proven methods as in any production process.

The third point is that this Statement makes capitalization dependent upon how the programming process is arranged, that is, the extent to which detail program design is separated from or integrated with coding and testing. The amount capitalized could differ significantly for comparable program outputs and, within the range of permitted capitalization, results would be essentially a matter of choice of approach to the programming process.

Mr. Mosso's dissent is based on the view that computer software is a key element in the ongoing shift of emphasis in the U. S. economy from tangible outputs and physical processes to intangible outputs and creative processes. Changes of that nature are evident in both emerging and old-line industries. In his view, accounting should accommodate this transition by reporting the results of creative processes on the balance sheet when those results comprise reasonably probable future economic benefits. Otherwise, financial statements will lose relevance as creative activities proliferate.

Messrs. Kirk and Mosso would support capitalization of costs incurred after an entity had completed the software product design and determined that proven technology is available to produce a deliverable product. The research and development classification of Statement 2 would apply only to those costs of designing the product and determining the availability of proven technology.

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Members of the Financial Accounting Standards Board:

Donald J. Kirk, *Chairman*
Frank E. Block
Victor H. Brown
Raymond C. Lauver
David Mosso
Robert T. Sprouse
Arthur R. Wyatt

Appendix A: BACKGROUND INFORMATION

18. The SEC imposed a moratorium effective April 14, 1983 that precluded an enterprise from capitalizing the costs of computer software that is internally developed and produced to be sold, leased, or otherwise marketed if that enterprise's financial statements had not previously disclosed a policy of capitalizing those costs. Enterprises that had capitalized software costs and had disclosed doing so were permitted to continue to capitalize. The SEC rule specified that the moratorium would be rescinded when the FASB provided guidance on the subject.

19. In February 1984, the FASB received an Issues Paper, "Accounting for Costs of Software for Sale or Lease," prepared by the AICPA Accounting Standards Division's Task Force on Accounting for the Development and Sale of Computer Software and approved by its Accounting Standards Executive Committee. The task force included members of ADAPSO—The Computer Software and Services Industry Association (formerly known as the Association of Data Processing Service Organizations) and the National Association of Accountants. That Issues Paper recommended that certain costs incurred in creating computer software for sale or lease be recorded as an asset. Subsequently, the Board expanded the scope of its project to encompass purchased software that is to be sold, leased, or otherwise marketed and reached somewhat different conclusions from the recommendations in the Issues Paper.

20. On August 31, 1984, the Board issued an Exposure Draft of a proposed Statement on the accounting for the costs of computer software to be sold, leased, or otherwise marketed as a separate product or as part of a product or process. That Exposure Draft proposed that the costs incurred internally in creating a computer software product would be charged to expense until cost recoverability had been established by determining market, technological, and financial feasibility for the product and management had or could obtain the resources to produce and market the product and was committed to doing so. Thereafter, the costs of the detail program design would have been charged to expense, and the costs of producing the product masters, including coding and testing, would have been capitalized. The capitalized costs would have been reviewed periodically for recoverability. All costs of planning, designing, and establishing the technological feasibility of a computer software product would have been research and

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development costs.

21. The Board received 210 letters of comment. Issues raised by respondents included the iterative nature of the software product process, the risks and uncertainty inherent in the software product process and industry, the costs of implementing the proposed Statement in relation to its benefits, the subjectivity and possible inconsistent application of the proposal, and the difficulty in implementing the portion of the proposed Statement related to software as part of a product or process.

22. As a result of the input received in the comment letters, the Board held two educational Board meetings during March and April 1985, which were open to public observation. Representatives from a total of nine software companies participated in those meetings. In May 1985, the Board held a public hearing on the Exposure Draft and the issues set forth in the public hearing notice. Thirty-four organizations and individuals presented their views.

23. After considering the comment letters and testimony received, the Board concluded that a final Statement should be issued. The principal changes in this Statement from the Exposure Draft are:

a. Completion of a detail program design or, if a company's software product process does not include a detail program design activity, completion of a working model is the minimum requirement to establish technological feasibility. The minimum requirement to establish technological feasibility under the Exposure Draft was the completion of a product design.
b. All software creation costs incurred prior to establishing technological feasibility are charged to expense when incurred as research and development costs. Under the Exposure Draft, the costs of coding and testing after establishing technological feasibility but prior to demonstrating recoverability would have been charged to expense as other than research and development.
c. All software creation costs incurred subsequent to establishing technological feasibility are capitalized and reported at the lower of cost or net realizable value. The Exposure Draft would have required capitalization of software production costs after meeting recoverability criteria consisting of technological, market, and financial feasibility and management commitment, with capitalized costs reviewed periodically for recoverability.

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Appendix B

BASIS FOR CONCLUSIONS

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Appendix B: BASIS FOR CONCLUSIONS

Introduction

24. This appendix summarizes considerations that were deemed significant by members of the Board in reaching the conclusions in this Statement. It includes reasons for accepting certain views and rejecting others. Individual Board members gave greater weight to some factors than to others.

Scope

25. This Statement addresses concerns about internally developed computer software raised in SEC Release No. 33-6476, *Accounting for Costs of Internally Developing Computer Software for Sale or Lease to Others*. That Release prohibited future capitalization of costs incurred to develop a computer software product by SEC registrants that had not previously done so and disclosed their accounting policy. This Statement also addresses issues raised in the AcSEC Issues Paper, but it establishes a more stringent capitalization requirement for computer software costs than was recommended in that Issues Paper.

26. In March 1985, the Board received an Issues Paper, "Accounting for Software Used Internally," submitted by the Management Accounting Practices Committee of the National Association of Accountants, proposing that the costs of internal use software should be capitalized in certain situations. As a result, the Board considered broadening the scope of this project to include costs incurred for an enterprise's development of computer software for its own use. After evaluation, the Board concluded that accounting for the costs of software used internally is not currently a significant problem and, therefore, decided not to broaden the scope of this project nor add a project on internal-use software to its present agenda. The Board recognized that the majority of companies expense all costs of developing software for internal use, and the Board was not persuaded that this current predominant practice is improper. Also, this Statement clarifies activities that are research and development activities and establishes a high capitalization threshold that is likely to be applied to costs incurred in developing software for internal use as well as for sale or lease to others.

27. The Board also considered broadening the scope to include guidance on recognizing revenue from the sale of computer software but decided to postpone a decision on whether to deal with that subject until the AcSEC task force completes its research thereon and submits an Issues Paper to the Board for its consideration.

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Research and Development and Production Costs of Computer Software

28. The Board recognized that the process of creating a computer software product varies among companies. Reasons for the variations include management style and differences in the types of products being developed. In defining those activities in the software product process that are research and development, the Board used the following definition of development presented in paragraph 8 of Statement 2 as a frame of reference:

> . . . the translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process whether intended for sale or use. It includes the conceptual formulation, design, and testing of product alternatives, construction of prototypes, and operation of pilot plants. It does not include routine or periodic alterations to existing products, production lines, manufacturing processes, and other ongoing operations even though those alterations may represent improvements and it does not include market research or market testing activities.

Paragraph 9 of Statement 2 provides several examples of activities that would be included in research and development. The Board concluded that the specific example in paragraph 9(i) closely describes the activities that lead to the existence of a detail program design or in its absence, a working model. That example states:

> 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.

The above definition of development and the relevant example formed the foundation for the Board's final conclusions on what activities in the software product process should be classified as research and development.

29. Some activities in the software product process closely correspond with the example in Statement 2 while the correspondence of other activities is less clear. Some respondents viewed nearly all software creation activities as research and development, and others viewed very few activities in the creation of a software product as research and development.

30. In the Exposure Draft, the detail program design activities were considered similar to the development activities described in Statement 2. The Exposure Draft generally considered coding and testing to be production activities and proposed that they be segregated from detail program design activities. However, a majority of respondents disagreed with that approach. Some asserted that coding and testing, as well as detail program design activities, are research and development and should therefore be charged to expense as incurred. Others stated that the

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detail program design is a production activity and, therefore, should be eligible for capitalization. Many respondents indicated that the costs involved to segregate the detail program design activities from coding and testing activities would far exceed the benefits derived from doing so. Others suggested that detail program design activities may cease to be required as future technological advances occur.

31. The Board considered the information received from respondents and concluded that requiring the segregation of the costs of the detail program design from the costs of coding and testing activities would not provide an objective point for evidence of a computer software product's technological feasibility and in some circumstances would be difficult to implement. The Board further concluded that, for purposes of applying this Statement, research and development activities should be considered incomplete until technological feasibility has been objectively established and that research and development activities in the software product process include (a) all planning and designing (both product design and detail program design) and (b) any coding and testing necessary to establish technological feasibility. Some respondents indicated that coding and testing activities that precede establishing technological feasibility should be considered production activities. However, the Board concluded that, until technological feasibility can be objectively established, the future economic benefits from such coding and testing activities are too uncertain to qualify for recognition as an asset and should be classified as research and development.

32. Some respondents suggested that the process of creating a particular software product may not involve the development of a detail program design. The Board decided that, absent a detail program design, the completion of the working model would be acceptable evidence of technological feasibility. That provision permits the application of this Statement if the detail program design activity is, for any reason, omitted from the software product process employed.

33. The Board recognized that some comparability may be lost if an enterprise's software process does not include a detail program design but concluded that virtually no comparability would be achieved if capitalizing the costs of computer software were dependent upon a somewhat subjective determination of technological feasibility at an earlier, less well defined stage of the development process. However, the Board concluded that objective evidence of technological feasibility must be available before the research and development phase can be considered to be complete and the production phase can begin. Consistency in applying Statement 2 among industries is an important consideration. In addition, the Board selected alternative criteria for evidence of technological feasibility to insure future applicability in the event that the software product process employed in the future does not include a detail program design.

34. The Board also recognized that the technological feasibility of some products cannot be established with completion of the detail program design because high-risk development issues remain. Resolution of all uncertainties related to identified high-risk development issues is therefore included as a requirement for establishing technological feasibility. The discussion of

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technological feasibility in the Basis for Conclusions of the Exposure Draft included the need to resolve all high-risk development issues. Several respondents encouraged the Board to incorporate that consideration into the standards section of the final Statement. The Board agreed with that suggestion and included the requirement in paragraph 4.

35. The Exposure Draft proposed that the recoverability of the cost of a product be established prior to capitalization. The four criteria used to establish a product's recoverability were technological, market, and financial feasibility and management commitment. Some respondents to the Exposure Draft suggested that those criteria were subjective and effectively would permit optional application of the proposed Statement. However, many respondents agreed that at some point in the computer software product process an asset exists and some costs should be capitalized.

36. The Board recognized that, in some cases, an enterprise may believe that a software product is technologically feasible before the criteria for establishing technological feasibility as set forth in this Statement are met. To provide a more objective measure of technological feasibility, the Board concluded that completion of a detail program design is the earliest point in the process that technological feasibility can be considered to be established for purposes of applying this Statement.

Purchased Computer Software

37. Some enterprises purchase software as an alternative to developing it internally. Purchased computer software may be modified or integrated with another product or process. The Board concluded that the costs of purchased software should be accounted for on a consistent basis with the costs incurred to develop such software internally. The Board further agreed that the alternative future use provision of paragraph 11 of Statement 2 should apply to purchased software; that is, if the purchased software is not capitalizable under the provisions of this Statement but has an alternative future use, the portion of the cost attributed to the software's alternative future use should be capitalized and accounted for according to its use.

38. Applying the provisions of this Statement to the costs of purchased software will result in the capitalization of the software's total cost if the criteria specified in paragraph 4 are met at the time of purchase. Otherwise, the cost will be charged to expense as research and development. For example, if the technological feasibility of a software product as a whole (that is, the product that will be ultimately marketed) has been established at the time software is purchased, the cost of the purchased software will be capitalized and further accounted for in accordance with the other provisions of this Statement. The cost of software purchased to be integrated with another product or process will be capitalized only if technological feasibility is established for the software component and if all research and development activities for the other components of the product or process are completed at the time of purchase.

39. If the technological feasibility test for the software product as a whole is not met at the

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time that the software is purchased but the software being purchased has an alternative future use (for example, for use as a tool in developing another product or for direct resale), the cost will be capitalized and subsequently accounted for according to its use. The alternative future use test will also apply to purchased software that will be integrated with a product or process in which the research and development activities for the other components are not complete.

Internally Developed Computer Software to Be Used as Part of a Product or Process

40. Computer software may be developed as an integral part of a product or process and not marketed or marketable as a separate product. In that case, even though the software has been completely developed, there may be no assurance that a salable product will exist, and the software may have no alternative future use. The Exposure Draft proposed the establishment of cost recoverability for the product or process as a whole prior to capitalization of any software costs.

41. Some respondents to the Exposure Draft and participants in the educational sessions objected to that provision on both conceptual and practical grounds. They suggested that the requirement to demonstrate recoverability for the product or process as a whole conflicted with Statement 2, which defines research and development activities and requires those activities to be charged to expense when incurred. In their view, the cost of a product that has hardware and software components would be accounted for differently under the Exposure Draft than currently required under Statement 2. For a product with hardware and software components, certain costs of the software could be capitalized when recoverability of the product cost was established, but all costs of the hardware would be expensed until completion of a prototype. That accounting treatment would require maintenance of separate cost records for the hardware and software components of the product.

42. The Board concluded that both establishing technological feasibility of the software component and completing research and development activities for the hardware component are necessary for capitalization of software costs to begin. The intention of this provision is to achieve consistency with Statement 2, consistency with the accounting for other software costs included in the scope of this Statement, and recognition of the related risks and uncertainties involved in developing a product or process that has more than one component. This approach does not require maintaining separate cost records for the hardware and software components of the same product.

Amortization of Capitalized Costs

43. A key objective in requiring the capitalization of certain costs incurred to purchase or internally produce computer software is to recognize the asset representing future economic benefits created by incurring those costs. Because a net realizable value test, which considers future revenues and costs, must be applied to capitalized costs, the Board concluded that amortization should be based on estimated future revenues. In recognition of the uncertainties

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involved in estimating revenue, the Board further concluded that amortization should not be less than straight-line amortization over the product's remaining estimated economic life. The Board also concluded that amortization expense should be computed on a product-by-product basis and that amortization should begin when the product is available for general release to customers.

Inventory and Other Costs

44. The costs incurred for a computer software product after coding, testing, and producing the product masters are production costs similar to costs incurred to produce any other product. Thus, the Board concluded that unit-specific costs, such as making copies from the product masters and physical packaging of the product, should be accounted for as costs of inventory as they are for other products.

45. Paragraph 6 requires the costs of other activities, such as customer support, maintenance, and training, to be charged to expense when related revenue is recognized or when the costs are incurred, whichever occurs first. When the sales price of a product includes customer support for several periods and the price of that support is not separately stated, the estimated related costs should be accrued in the same period that the sales price is recognized.

Evaluation of Capitalized Software Costs

46. The Exposure Draft proposed that an enterprise establish the recoverability of the costs of a computer software product prior to capitalization of software costs. An assessment of the recoverability of capitalized costs was required in each reporting period. If recoverability was determined to be no longer established, capitalized costs were to be written down to an amount for which recoverability could be established.

47. Respondents indicated that the ongoing recoverability test used was described in terminology different from that used to describe a net realizable value test in accounting for other assets, such as motion picture films. The Board concluded that a net realizable value test should replace the recoverability test because the net realizable value test will accomplish the same objective and uses terminology consistent with other accounting literature. The Board agreed that the capitalized costs of each software product should be subsequently valued, in each reporting period, at the lower of its remaining unamortized cost or net realizable value.

48. The concept of net realizable value is similar to that discussed in paragraph 9 of ARB No. 43, Chapter 4, "Inventory Pricing," which addresses inventory valuation. The Board determined that a test of "cost or market, whichever is lower" is not entirely appropriate for capitalized software costs because a replacement cost for the product will not always be available.

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Disclosures

49. Because of the significance of computer software costs to enterprises in the computer software industry and because some of those costs are required to be capitalized and some charged to expense when incurred, the Board concluded that the disclosures specified in paragraphs 11 and 12 are necessary. Those disclosures are intended to assist users of the financial statements in making their assessments of the operations, potential risks, and financial status of enterprises that produce computer software.

Amendments to Other Pronouncements

50. The portions of Interpretation 6 that remain after the amendments specified in this Statement pertain essentially to the costs of software for internal use. Paragraph 5 of that Interpretation states that "costs incurred to purchase . . . computer software . . . are not research and development costs . . . unless the software is for use in research and development activities." The phrase "for use in research and development activities" includes tools used to facilitate research and development or components of a product or process that are undergoing research and development activities. The aforementioned reference to purchased software in Interpretation 6 is consistent with the requirements of this Statement.

Transition

51. Most enterprises in the computer software industry currently expense all computer software development and production costs when those costs are incurred. Those that capitalize some computer software production costs apply criteria that differ among enterprises and differ from the criteria specified in this Statement. The information that would be necessary to determine the amounts that would be capitalized if this Statement were applied retroactively is not necessarily available. The Board concluded that the cost of requiring such a determination retroactively would exceed the benefits it might offer. The Board concluded that such a retroactive determination should not be made. However, the Board decided to permit, but not require, application in financial statements for a fiscal year for which financial statements have not been issued. The Board further concluded that costs capitalized before the application of this Statement should be subject to the net realizable value test specified in paragraph 10, but should not otherwise be adjusted to an amount that would have been capitalized had this Statement been applied. Classifying, amortizing, and disclosing previously capitalized costs in accordance with the provisions of this Statement should result in an acceptable level of comparability and understandability.

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Appendix C: GLOSSARY

52. This appendix defines certain terms that are used in this Statement.

Coding

Generating detailed instructions in a computer language to carry out the requirements described in the detail program design. The coding of a computer software product may begin prior to, concurrent with, or subsequent to the completion of the detail program design.

Customer support

Services performed by an enterprise to assist customers in their use of software products. Those services include any installation assistance, training classes, telephone question and answer services, newsletters, on-site visits, and software or data modifications.

Detail program design

The detail design of a computer software product that takes product function, feature, and technical requirements to their most detailed, logical form and is ready for coding.

Maintenance

Activities undertaken after the product is available for general release to customers to correct errors or keep the product updated with current information. Those activities include routine changes and additions.

Product design

A logical representation of all product functions in sufficient detail to serve as product specifications.

Product enhancement

Improvements to an existing product that are intended to extend the life or improve significantly the marketability of the original product. Enhancements normally require a product design and may require a redesign of all or part of the existing product.

Product masters

A completed version, ready for copying, of the computer software product, the documentation, and the training materials that are to be sold, leased, or otherwise marketed.

Testing

Performing the steps necessary to determine whether the coded computer software

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product meets function, feature, and technical performance requirements set forth in the product design.

Working model

An operative version of the computer software product that is completed in the same software language as the product to be ultimately marketed, performs all the major functions planned for the product, and is ready for initial customer testing (usually identified as beta testing).

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Footnotes

FAS86, Footnote 1--Terms defined in the glossary (Appendix C) are in **boldface type** the first time they appear in this Statement.

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