Federal Accounting Standards Advisory Board

IMPLEMENTATION GUIDANCE FOR INTERNAL USE SOFTWARE

DRAFT

Federal Financial Accounting Technical Release

Exposure Draft

Written comments are requested by October 28, 2015

September 16, 2015

THE FEDERAL ACCOUNTING STANDARDS ADVISORY BOARD

The Secretary of the Treasury, the Director of the Office of Management and Budget (OMB), and the Comptroller General, established the Federal Accounting Standards Advisory Board (FASAB or "the Board") in October 1990. FASAB is responsible for promulgating accounting standards for the United States Government. These standards are recognized as generally accepted accounting principles (GAAP) for the federal government.

Section III. I (3) of FASAB's Rules of Procedure authorizes the AAPC to issue Technical Releases related to existing federal accounting standards. Technical releases are intended to provide guidance on the specific application of Statements of Federal Financial Accounting Standards (SFFASs), Interpretations of SFFASs, and Technical Bulletins. AAPC's Technical Releases are in the third category of authoritative guidance in the Federal GAAP hierarchy as stated in the SFFAS 34, The Hierarchy of Generally Accepted Accounting Principles. AAPC may not amend existing standards or promulgate new standards.

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- "Mission Statement: Federal Accounting Standards Advisory Board", exposure drafts, Statements of Federal Financial Accounting Standards and Concepts, FASAB newsletters, and other items of interest are posted on FASAB's website at: www.fasab.gov.

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The Accounting and Auditing Policy Committee

The Accounting and Auditing Policy Committee (AAPC) was organized in May 1997 by the Department of the Treasury, the Office of Management and Budget (OMB), the Government Accountability Office (GAO), the Chief Financial Officers' Council (CFOC), and the Council of the Inspectors General on Integrity and Efficiency (CIGIE) [formally the President's Council on Integrity and Efficiency (PCIE)], as a body to research accounting and auditing issues requiring guidance.

The AAPC serves as a permanent committee established by the Federal Accounting Standards Advisory Board (FASAB). The mission of the FASAB is to develop accounting standards after considering the financial and budgetary information needs of congressional oversight groups, executive agencies, and the needs of other users of Federal financial information. The mission of the AAPC is to assist the Federal government in improving financial reporting through the timely identification, discussion, and recommendation of solutions to accounting and auditing issues as they relate to the specific application of existing authoritative literature.

The AAPC is intended to address issues that arise in implementation, which are not specifically or fully discussed in Federal accounting and auditing standards. The AAPC's guidance is cleared by FASAB before being published.

Additional background information on the AAPC is available from the FASAB or its website:

- Charter of the Accounting and Auditing Policy Committee

- Accounting and Auditing Policy Committee Operating Procedures

Federal Accounting Standards Advisory Board

September 16, 2015

TO: ALL WHO USE, PREPARE, AND AUDIT FEDERAL FINANCIAL INFORMATION

Your comments on the exposure draft of a proposed Federal Financial Accounting Technical Release, *Implementation Guidance for Internal Use Software*, are requested. Specific questions for your consideration appear on page 3 but you are welcome to comment on any aspect of this proposal. If you do not agree with the proposed approach, your response would be more helpful to the Committee if you explain the reasons for your position and any alternative you propose. Responses are requested by **October 28, 2015**.

All comments received are considered public information. Those comments may be posted to the AAPC's website and will be included in the project's public record.

Mail delivery is delayed by screening procedures. Therefore, please provide your comments in electronic form by e-mail to fasab@fasab.gov. If you are unable to e-mail your responses, we encourage you to fax the comments to (202) 512-7366. Alternatively, you may mail your comments to:

Wendy M. Payne, Executive Director
Federal Accounting Standards Advisory Board
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441 G Street, NW
Washington, DC 20548

We will confirm receipt of your comments. If you do not receive confirmation, please contact our office at 202.512.7350 to determine if your comments were received.

We may hold one or more public hearings on any exposure draft. No hearing has yet been scheduled for this exposure draft. Notice of the date and location of any public hearing on this document will be published in the Federal Register and in the FASAB's newsletter.

Sincerely,

Wendy M. Payne

AAPC Chairperson

EXECUTIVE SUMMARY

This Technical Release (TR) assists reporting entities in implementing Statement of Federal Financial Accounting Standards (SFFAS) 10, *Accounting for Internal Use Software*. Since FASAB issued SFFAS 10 in 1998, software development practices have changed dramatically and reporting entities have experienced challenges applying the standards given the new terminology and techniques that have evolved. The TR provides implementation guidance regarding:

a. The definition of IUS, component/module based IUS assets, software development practices including approaches that involve phases, and clarifying IUS recognition, measurement, and disclosure items (such as capitalized cost, capitalization cut off, capitalization threshold, enhancement, impairment, and related matters);
b. New IUS challenges brought by changes in IUS development practices since the issuance of SFFAS 10; and
c. Management's role in applying SFFAS 10.

This objective of this guidance is to explain how to apply existing standards to the fast changing Internal Use Software (IUS) environment and help ensure that:

a. Transactions involving IUS are recorded in accordance with federal accounting standards.
b. The cost of producing federal financial information, as it relates to capitalization or expense of IUS cost, does not outweigh the benefits derived by the users of the financial information.

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QUESTIONS FOR RESPONDENTS

The AAPC encourages you to become familiar with all proposals in the technical release before responding to the questions in this section. In addition to the questions below, the AAPC also would welcome your comments on other aspects of the proposed technical release.

The AAPC believes that this proposal would improve federal financial reporting and contribute to meeting the federal financial reporting objectives. The AAPC has considered the perceived costs associated with this proposal. In responding, please consider the expected benefits and perceived costs and communicate any concerns that you may have in regard to implementing this proposal.

The questions in this section are available in a Word file for your use at www.fasab.gov/exposure.html. Your responses should be sent by e-mail to fasab@fasab.gov. If you are unable to respond by e-mail, please fax your responses to (202) 512-7366. Alternatively, you may mail your responses to:

Wendy M. Payne, Executive Director
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All responses are requested by **October 28, 2015**

Q1. In the Clarification of Existing Standards section (paragraphs 10-24), this Technical Release (TR) considers the software development terms and practices that reporting entities utilize currently and helps clarify the standards in light of those terms and practices. Do you agree with the clarification and the new concepts, such as Component Based IUS Asset, presented? If not, please explain your reason.

Q2. In the Guidance on Applying SFFAS 10 to Certain New IUS Developments section (paragraphs 25-33), this TR introduces new terms and defines them in light of the application of this guidance. Do you agree that the definitions reflect typical current new software development items and the associated guidance is reasonable? If not, please explain your reason.

Q3. In Appendix B starting on page 16, this TR provides two tables illustrating business events and deliverables which agencies may see within a software development life-cycle and some common agency practice examples to assist entity management in applying the principles described throughout the TR. Do you think that both illustration tables will help agencies? If not, please explain your reason.

Q4. Are there additional common issues or illustrations across agencies that should be considered? If so, what are they, and how would you describe them?

INTRODUCTION

PURPOSE

1. This Technical Release (TR) assists agencies in applying SFFAS 10, *Accounting for Internal Use Software*, to the new software development practices that have evolved since FASAB issued the standard in October 1998. The TR considers the software development terms and practices that reporting entities utilize currently and helps clarify the standards in light of those terms and practices. Specifically, the TR provides guidance regarding:

    a. The definition of internal use software (IUS), component/module based IUS assets, software development practices including approaches that involve phases, and clarifying IUS recognition, measurement, and disclosure items (such as capitalized cost, capitalization cut off, capitalization threshold, enhancement, impairment, and related matters);

    b. New IUS challenges brought by changes in IUS development practices since the issuance of SFFAS 10; and

    c. Management's role in applying SFFAS 10.

2. This TR introduces new terms used in current development practices and defines them in light of the application of this guidance. It provides a discussion of issues and examples to assist entity management in applying the principles described throughout the TR. The examples were selected because they were derived from underlying transactions or organizational characteristics rather than being attributable to preferences.

3. The accounting standards and related basis for conclusions consistently recognize management's role in interpreting and applying generally accepted accounting principles (GAAP) within its operational environment. This TR recognizes that management is responsible for establishing IUS accounting policies, methodologies, and for maintaining adequate documentation on the sources of data. It also recognizes that the cost of producing federal financial information, as it relates to capitalization or expense of IUS cost, should not outweigh the benefits derived by the users of the financial information.

BACKGROUND

4. The software development life cycle has dramatically changed since the issuance of SFFAS 10 in 1998. At that time the linear/waterfall[1] software development practices were prevalent and characterized by three distinct life-cycle phases and long development cycles. Given the changes in development practices, technological

[1] The waterfall model is a sequential design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the software development phases.

advances, and significant new development techniques and architectures,[2] guidance for implementation and sustainment of SFFAS 10 became critical.

5. This TR introduces new IUS development terms and defines them to aid in applying existing standards. The definitions provided are not all encompassing but are included to promote greater understanding, and more consistent application and implementation of the standards. The same principles used to develop the guidance on the current IUS development practices could be used for future IUS development practices. The business events and deliverables table and agency practice examples are provided in Appendix B. These examples are intended to illustrate use of professional judgment in the development and application of policy and practices to account for IUS in accordance with GAAP. The examples are not all encompassing and agencies may identify other more useful and relevant methodologies. Users of this guidance should use these examples to develop their own reasonable business processes.

6. This TR was developed to aid in meeting the operating performance reporting objective identified in Statement of Federal Financial Accounting Concepts 1, *Objectives of Federal Financial Reporting,* paragraph 14[3]: Federal financial reporting should assist report users in evaluating the service efforts, costs, and accomplishments of the reporting entity; the manner in which these efforts and accomplishments have been financed; and the management of the entity's assets and liabilities. Federal financial reporting should provide information that helps the reader to determine:

    a. The costs of providing specific programs and activities and the compositions of, and changes in, these costs;
    b. The efforts and accomplishments associated with Federal programs and the changes over time and in relation to costs; and
    c. The efficiency and effectiveness of the Government's management of its assets and liabilities.

RELATED ACCOUNTING LITERATURE

7. The related accounting standards are as follows:
    a. SFFAS 4*, Managerial Cost Accounting Concepts and Standards for the Federal Government*
    b. SFFAS 6*, Accounting for Property, Plant, and Equipment*
    c. SFFAS 5, *Accounting for Liabilities of the Federal Government*
    d. SFFAS 10*, Accounting for Internal Use Software*
    e. SFFAS 35*, Estimating the Historical Cost of General Property, Plant, and Equipment: Amending Standards of Federal Financial Accounting Standards 6 and 23*

[2] Such as cloud service, shared service, agile development and spiral development with a focus on module based development and shorter development cycles.
[3] This principle was also relied upon in Office of Management and Budget (OMB) Circular *A-11 Preparation, Submission, and Execution of the Budget;* Supplement to Circular A-11*, Capital Programming Guide* (July 2014)*,* Page 61.

TECHNICAL GUIDANCE

SCOPE

8. Readers of this Technical Release (TR) should first refer to the hierarchy of accounting standards in SFFAS 34, *The Hierarchy of Generally Accepted Accounting Principles*, *including the Application of Standards Issued by the Financial Accounting Standards Board*. This TR supplements the relevant accounting standards, but is not a substitute for and does not take precedence over the standards. This TR clarifies but does not change guidance provided in SFFAS 4, SFFAS 5, SFFAS 6, SFFAS 10, and SFFAS 35.

9. This TR affects TR5 *Implementation Guidance on Statement of Federal Financial Accounting Standards 10: Accounting for Internal Use Software*. In specific, paragraphs 12, 13, 14, 17 and 18 are rescinded.

10. This TR applies to all internal use software that meet the definition of IUS as described in SFFAS 10, except for the following:
    a. Software to be used in research and development where the software will not have an alternate future use, and
    b. Integrated software (SFFAS10 paragraph 22) unless the software is developed separately and could be installed on a number of different general property, plant, and equipment (PP&E) assets at different times.[4]

APPLYING EXISTING STANDARDS TO CURRENT DEVELOPMENT MODELS

11. **IUS Definition:** SFFAS 10, paragraphs 8 – 9, defines "internal use software" as software that is "purchased from commercial vendors off-the-shelf (COTS), internally developed, or contractor-developed solely to meet the entity's internal or operational needs." The IUS development or modification can be performed by employees of the entity or contractors that the federal entity is paying to design program, install, and implement. Software assets need to be evaluated for ownership to determine which entity is ultimately responsible for reporting the asset.

12. **Development Phases**: SFFAS 10 presents three phases of software development that follow a linear approach to an IUS project: the preliminary design phase, the software development phase, and the post-implementation/operational phase. Generally, costs incurred during the development phase are to be capitalized and costs incurred in other phases are to be expensed. However, software may not always be developed under this linear approach and capitalization decisions absent distinct phases are more difficult.

[4] SFFAS 10, par. 22 provides that computer software that is integrated into and necessary to operate general PP&E, rather than perform an application, should be considered part of the PP&E of which it is an integral part and capitalized and depreciated accordingly. However, computer software could be developed separately and installed on several general PP&E assets at different times. For example, anti-ballistic missile software installed on multiple radar systems at different times can be treated as a separate IUS asset if the software meets the capitalization threshold.

Regardless of timing, the cost incurred for development phase activities should be capitalized or expensed based on their substance rather than their phase.

13. **Capitalized Cost**: The full cost (direct and indirect cost) incurred during the software development phases should be capitalized (SFFAS 10 paragraph 16 thru 18). Considering economic feasibility, a cost estimation technique could be developed to trace the costs to outputs based on the SFFAS 4, paragraph 124, provision that "[in] principle, costs should be assigned to outputs in one of the methods listed below in the order of preference:

    a. Directly tracing costs wherever economically feasible;

    b. Assigning costs on a cause-and-effect basis; and

    c. Allocating costs on a reasonable and consistent basis."

14. A specific software development project may include expenditures for improvements and maintenance that cannot be easily separated but may be reasonably and consistently allocated. One approach that can be used is a ratio based on the projected work hours for development phase activities relative to other types of work. Such a ratio can be applied to determine the expenditures that should be capitalized. The basis for allocating costs should be consist with applicable standards and defensible.

15. **Capitalization Cut Off**: SFFAS 10 paragraph 20 states, "Costs incurred after final acceptance testing has been successfully completed should be expensed. Where the software is to be installed at multiple sites, capitalization should cease at each site after testing is complete at that site." In some development practices, each iteration[5] within an IUS development has its own acceptance testing before moving forward to the next iteration and final acceptance testing may not always be performed. The entity should identify a pre-determined agency milestone such as the go-live or in-service date which is equivalent to a final acceptance test for capitalization cut off purposes.

16. **Component Based IUS Asset**: SFFAS 10 paragraph 33 states, "For each module or component of a software project, amortization should begin when that module or component has been successfully tested. If the use of a module is dependent on completion of another module(s), the amortization of that module should begin when both that module and the other module(s) have successfully completed testing." For example, an entity may develop an accounting software system containing three modules: a general ledger, an accounts payable sub-ledger, and an accounts receivable sub-ledger. In this example, each module could be analyzed to determine whether it could be treated as a separate asset. Specifically, if the module provides economic benefit through distinct, substantive functionality; and meets the tests for capitalization threshold, ownership, and eligibility for capital treatment, then the module could be treated as a separate IUS asset for the purposes of recognition, measurement including amortization, and disclosure in accordance with SFFAS 10.

[5] Iteration is the act of repeating a process with the aim of approaching a desired goal, target or result. Each repetition of the process is also called an "iteration", and the results of one iteration are used as the starting point for the next iteration.

17. **Capitalization Threshold:** SFFAS 10 paragraph 24 states, “Each federal entity should establish its own threshold as well as guidance on applying the threshold to bulk purchases of software programs (e.g., spreadsheets, word-processing programs, etc.) and to modules or components of a total software system.” When establishing the capitalization threshold for IUS, the federal entity should include both qualitative and quantitative considerations. Qualitative considerations could be applied to IUS assets that require special management attention because of their importance to the agency mission; high development, operating, or maintenance costs; high risk; high return; or their significant role in the administration of agency programs, finances, property, or other resources.[6]

18. When establishing a capitalization threshold for bulk software purchases, the threshold should not be based on unit price. The organization should consider the bulk value and useful life established by the organization to avoid materially distorting period costs and understating asset values.

19. OMB notes that a stratified capital programming process involving more or less detail and review based on the size or strategic importance of proposed investments may be appropriate, particularly in large agencies.[7] Similarly, more than one capitalization threshold could be established for different components of a large agency. Agencies should have well documented thresholds clearly disseminated and implemented across the organization.

20. **Enhancement:** SFFAS 10 paragraph 25 states, “The acquisition cost of enhancements to existing internal use software (and modules thereof) should be capitalized when it is more likely than not that they will result in significant additional capabilities.” Significant additional capabilities are modifications to existing IUS that result in additional functionality—that is, modifications to enable the software to perform tasks that it was previously incapable of performing. As stated in SFFAS 10 paragraph 26, capitalizable enhancements normally require new software specifications and may also require a change to all or part of the existing software specifications. Examples of enhancements could include augmenting existing business functions with new features and functions, developing additional new business functions, and/or adding new functionality and capability.

21. If one module is dependent upon another to function, then those modules should be evaluated together as one enhancement. All costs of an enhancement, including any costs carried over or allocated from the original software, should be amortized over the enhancement's estimated useful life.

22. **Impairment:** SFFAS 10 paragraphs 28-30 address how to determine if software is impaired during the post-implementation operational phases and the measurement of the impairment for the impaired software remaining in use or to be removed. Significant events or changes in operating circumstances warrant a review to determine whether the carrying value of an existing software asset is not recoverable and should be

[6] OMB Circular A-11 *Preparation, Submission, and Execution of the Budget; Supplement to Circular A-11, Capital Programming Guide, Threshold for Capital Programming*, page 2, July 2014.
[7] See note 6.

impaired. An assessment should be performed to determine the remaining useful life of the impaired software for amortization purposes.

23. When it is more likely than not that a software project will not be completed, no further costs should be capitalized and any costs that have been capitalized should be written off in accordance with SFFAS10, paragraph 31. Indications that the software may no longer be completed include:
    a. The expenditures are neither budgeted nor incurred to fund further development;
    b. The discontinuance of the business segment the software was designed for;
    c. The inability to resolve programming difficulties timely;
    d. Significant cost overruns; or
    e. A decision to obtain COTS instead and abandon the current software development

24. When a software project is suspended pending management's evaluation as to whether to resume or terminate the project, the software development cost may remain capitalized as long as a reasonable chance[8] exists that the software project will eventually be completed and the cost incurred or expected to be incurred meets the capitalization threshold. The status of the project should be reevaluated periodically and the capitalized cost should be written off if management concludes that it is more likely than not that the software will not be placed into service in the future.

25. **Software License:** If the term of software license(s) is 2 years or more, the licenses should be evaluated against lease criteria as stated in SFFAS 5 paragraphs 43-46 and SFFAS 6 paragraph 20 to determine if it is a capital or operating lease. If the license(s) is perpetual with an upfront cost[9] to use the software for its entire lifetime, then the entity's existing policy for capitalization thresholds could be applied to determine if it should be capitalized or expensed.

GUIDANCE ON APPLYING SFFAS 10 TO CERTAIN NEW IUS DEVELOPMENTS

Cloud Computing

26. A cloud computing service is any resource that is provided over the Internet. It has the following essential characteristics: on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service. The most common cloud service resources are: software as a service, platform as a service, and infrastructure as a service.[10]

[8] See SFFAS10. par. 31 provides for write off if it is more likely than not that the project will not be completed and placed in service.
[9] The cost could be charged as a one-time payment or financed over a set period of time.
[10] The full definition is available at The National Institute of Standards and Technology: *The NIST Definition of Cloud Computing,* Special Publication 800-145, September 2011.

27. If a cloud computing arrangement includes a software license, the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses in accordance with the lease criteria stated in SFFAS 5 and SFFAS 6, and as discussed in paragraph 24 of this TR. SFFAS 10 is not applicable to a cloud computing arrangement that does not convey a contractual right to the IUS or to ones that do not include an IUS license. The entity that develops and owns the software, platform or infrastructure that is used in the cloud computing arrangement would account for the software development in accordance with SFFAS 10. If the funding to develop cloud computing is shared among entities without clear ownership, the service provider entity that receives funding and is responsible for maintaining the software, platform or infrastructure should account for the software in accordance with SFFAS 10.

Shared Services

28. Shared Service means a mission or support function provided by one business unit to other business units within or between organizations. The funding and resourcing of the service is shared and the providing entity effectively becomes an internal/external service provider. There are two types of shared service structures in the Federal Government: intra-agency and interagency. Intra-agency shared services include those provided within the boundaries of a specific organization such as a Federal department or agency, to that organization's internal units. Interagency shared services are those provided by one Federal organization to other Federal organizations that are outside of the provider's organizational boundaries.[11]

29. For intra-agency shared services, a cost allocation methodology could be developed in accordance with SFFAS 4, paragraphs 120-125. For interagency shared services, the service provider entity that owns (receives funding/responsible for maintaining) the software should account for the software in accordance with SFFAS 10. In the event that the entity receiving the service (the customer) has the contractual right to take possession of the software at any time during the hosting period without significant penalty, and it is feasible for the customer to either run the software on its own hardware or contract with another party unrelated to the vendor to host the software, then the customer should account for the software in accordance with SFFAS 10.

30. If the shared service arrangement includes a software license, the customer should account for the software license element of the arrangement consistent with the acquisition of their other software licenses, as discussed in this TR paragraph 24. SFFAS 10 is not applicable to a shared service arrangement that does not convey a contractual right to the IUS or to ones that do not include an IUS license.

[11] Chief Information Office Council: *Federal Shared Service Implementation Guide*, April 2013.

Agile Software Development Method

31. Agile software development method is a group of software development methods in which requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. In an agile project, working software is deployed in iterations of typically one to eight weeks in duration, each of which provides a segment of functionality.[12] Initial planning regarding cost, scope, and timing is usually conducted at a high level, and the project status is primarily evaluated based on software demonstrations.

32. The IUS development phases listed in SFFAS 10 paragraphs 10 -14 and within this TR could be applied to agile development projects on an iteration basis. If an iteration developed meets the module or component asset definition in accordance with SFFAS 10, paragraph 33 and as discussed in paragraph15 of this TR, then it could be treated as an individual IUS project and would be accounted for in accordance with SFFAS 10. If the numbers of iterations are dependent on the outcomes of multiple processes for a complete function, the cost incurred in these iterations should be grouped together based on the nature of the activities (capital or expense) and treated as one project for the purposes of recognition, measurement, and disclosure in accordance with SFFAS 10. Any future incremental releases that result in additional functionality can be treated as an enhancement of the original IUS project and accounted for in accordance with SFFAS 10.

Spiral Software Development Method

33. Spiral software development method combines the features of the waterfall and prototyping[13] incremental models, but with more emphasis placed on risk analysis and management. The spiral methodology projects are typically separated into phases like the waterfall method: planning, risk analysis, engineering, and evaluation. However, they are broken up into incremental releases of the product, or incremental refinement through each time around the spiral and through continuously analyzing the requirements and improving the definition and implementation. At each iteration around the cycle, the project is improved and extended. The release could be to an external or internal client, or to a partner.

34. The IUS development phases listed in SFFAS 10 paragraphs 10-14 and within this TR could be applied to a spiral development project on a process iteration basis. If an iteration developed meets the module or component asset definition in accordance with SFFAS 10 and as discussed in paragraph 15 of this TR, then it could be treated as an individual IUS project and would be accounted for in accordance with SFFAS 10. If the number of iterations are dependent on the outcomes of multiple spiral processes for a

[12] Government Accountability Office: *Software Development Effective Practices and Federal Challenges in Applying Agile Methods*, July 2012.

[13] The Prototyping Model is a system development method in which a prototype (an early approximation of a final system or product) is built, tested, and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed. This model works best in scenarios where not all of the project requirements are known in detail ahead of time. It is an iterative, trial-and-error process that takes place between the developers and the users.

complete function, the cost incurred in these iterations should be grouped together based on the nature of the activities (capital or expense) and treated as one project for the purposes of recognition, measurement, and disclosure in accordance with SFFAS 10. Any future incremental releases that result in additional functionality can be treated as an enhancement of the original IUS project and accounted for in accordance with SFFAS 10.

SUMMARY OF ILLUSTRATIONS

35. The Business Events & Deliverables for Software Development Phases and the Common Agency Practice tables listed in Appendix B support development of accounting policies and practices appropriate to each organization's characteristics in accordance with GAAP. The tables are meant to provide examples for reporting entities to consider in developing organizational accounting policies and practices that will best support their operating models, provide the financial information necessary to manage programs, and report in accordance with GAAP. Reporting entities should report the IUS in the general purpose financial reports. Full costs of IUS development should be expensed or capitalized in accordance with GAAP and each entity's accounting policies and practices should support cost beneficial implementation.

EFFECTIVE DATE

36. This Technical Release is effective upon issuance.

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

APPENDIX

APPENDIX A: BASIS FOR CONCLUSIONS

This Appendix discusses some factors considered significant by AAPC members in reaching the conclusions in this Technical Release. It includes the reasons for accepting certain approaches and rejecting others. Individual members gave greater weight to some factors than to others. The guidance enunciated in this TR not the material in this Appendix should govern the accounting for specific transactions, events, or conditions.

PROJECT HISTORY

A1. In June 2013, FASAB's AAPC established the IUS Task Force to assist in developing implementation guidance for IUS as it relates to SFFAS 10, *Accounting for Internal Use Software* and other related IUS guidance developed by the FASAB. The task force includes federal agency representatives who are experiencing issues with implementing SFFAS 10 and those who have implemented workable common practices to share with the federal community as well as industry representatives from several public accounting and consulting firms.

A2. During the initial phase of the project, the IUS task force divided into three subgroups to conduct research and explore the best approach for addressing current IUS issues within the federal community, including whether a TR should be developed, or revisions should be made to SFFAS 10. The subgroups met separately to discuss their assigned issues and report their research findings. The three subgroups were:

a. IUS Mapping Team
b. IUS Benchmarking Team
c. Standards Team

A3. After presenting the results of their research to the FASAB and AAPC, the task force concluded that implementation guidance would address the current IUS issues within the federal community. As a result, the AAPC endorsed the approach. The group held a re-entrance meeting on February 27, 2015 to re-engage agencies in drafting implementation guidance. This guidance focused on highlighting the common issues identified across the federal government IUS process, clarifying terminology, introducing new terms from the recent software development methodologies in light of application of SFFAS 10, and providing sample IUS practices adopted by the agencies. Based on the research, a TR would equip federal agencies with the knowledge and information needed to identify effective IUS practices that would in turn strengthen financial reporting in IUS area. It consists of two major topic areas:

a. Standards Clarification
b. Practical Examples of Implementation

A4. The IUS FASAB Task Force, which included industry representatives from several public accounting and consulting firms, as well as representatives from the following federal agencies, developed this proposed guidance:

a. Department of Commerce (DOC)
b. Department of Defense (DOD) (including the individual military departments)
c. Department of Health and Human Services (HHS)
d. Department of Homeland Security (DHS)
e. Department of Labor (DOL)
f. Department of Transportation (DOT)
g. Department of Treasury (Treasury)
h. Environmental Protection Agency (EPA)
i. Office of the Director of National Intelligence (ODNI)
j. United States Securities and Exchange Commission (SEC)

A5. Two subgroups were formed for standards clarification and best practices. The subgroups developed two data calls to highlight the commonalities across the federal IUS process. The first data call aided federal agencies in clarifying terminology and identified popular new IUS development items. The second data call highlighted IUS current practices adopted by the agencies and identified IUS development phase activities across the IUS development phases. The second data call also collected detail business events and typical deliverables during IUS development phases. Both data calls equip federal agencies with the knowledge and information needed to strengthen financial reporting.

A6. In reaching its conclusions, the subgroups recognized the need to develop implementation guidance to promote an understanding of rapid changes related to software development practices that have evolved since the inception of SFFAS 10. The IUS task force views clarification of implementation and sustainment issues as critical given the new IUS challenges related to environmental changes and technological advances. There are several cost-beneficial and reasonable changes (for example, policies, systems, and processes) that federal entities can make to facilitate better financial management and reporting of IUS. However, entity management must be allowed to navigate within the parameters of GAAP to determine the point at which the costs of improving or providing financial information outweigh the derived benefits.

A7. This TR recognizes that the financial management information needs of stakeholders, both internal and external, vary by entity. The agency-specific examples (detailed in Appendix B) demonstrate how tracking costs to specific invoices may be tailored to different operating models and comply with GAAP. The implementation guidance does not provide a ‘one-size-fits-all’ solution; instead, it is designed to give management a tool on which to base stakeholder financial management information needs.

A8. When applying the principles listed in the SFFAS 10, management should develop formalized policies and procedures documenting their decisions. Management is responsible for maintaining adequate documentation on the sources of data and the application of methodologies used when estimating cost.

A9. Implementation of SFFAS 10 and this guidance is a joint effort of an entity’s Chief Finance Office and Chief Information Office. It is management’s responsibility to provide for smooth communication between these two offices to foster an efficient and effective IUS implementation process.

APPENDIX B: ILLUSTRATIONS

The examples in this Appendix are for illustration only; they do not represent authoritative guidance. These illustrations depict only a portion of the reporting entities' operations and their inclusion in this TR does not equate to policy acceptance, in whole or part, by the FASAB or the AAPC.

ILLUSTRATIONS B-1: BUSINESS EVENTS AND DELIVERABLES FOR SOFTWARE DEVELOPMENT PHASES

The table below provides examples of business events and deliverables which agencies may see within a typical software development life-cycle. The table is structured to follow the three software development phases as defined in SFFAS 10 paragraphs 11-14. When applying examples in this table to software development phases, the decision to capitalize or expense an item should be determined based on the nature of the cost activity when it is incurred, in accordance with SFFAS 10 paragraph 16 and as discussed in this TR paragraph 11: "Generally, costs incurred during the development phase are to be capitalized and costs incurred in other phases are to be expensed. However, software may not always be developed under this linear approach and capitalization decisions absent distinct phases are more difficult. Regardless of timing, the cost incurred for development phase activities should be capitalized based on their substance rather than their phase."

The table may be used as a sample guide for categorizing business events and deliverables during IUS phases, but it is not intended to be comprehensive. Each agency is responsible for developing policies and procedures that are appropriate for its specific environment and needs and may differ in content and order from the table below.

Business Event	Typical Deliverables
Preliminary Design Phase	
Formulation of Alternatives[14]	
-Justification of investment need -Conceptual formulation of alternatives -Evaluation and testing of alternatives -Determination of existence of needed technology -Final selection of alternatives	Major Information Technology (IT) Business Cases, Capital Investment Decision Paper, Information Resources Management Strategic Plan, Enterprise Architecture Roadmap, IT Capital Asset Summary, Agency IT Portfolio Summary submissions, Alternative of Analysis

[14] OMB Circular A-11 provides more information for alignment of agency IT investments with agency strategic plans.

Business Event	Typical Deliverables
Establish Project Governance	
-Identify and incorporate vision, roles, responsibilities, governance, organizations and authorizations in project charter -Identify and document risks specific to project, including security risks -Establish and document quality control practices -Develop high-level estimates and schedule -Update discoveries and additional information	Project Charter, Project Action/Risk Register, Quality Management Plan, Project Schedule, Project Plan, Work Breakdown Structure
Determine Requirements	
-Develop high level list of functional and non-functional requirements -Obtain, review and document detailed business specifications for business requirements -Determine and document general data flows and interactions with other systems -Determine detailed business/system specifications to support requirements	Vision documents, Requirement Specification Document, Requirement Traceability Matrix, Process Flow Diagrams, Supplementary Specifications, Use Cases, User Workflow
Develop Software Development Plan	
-Create initial plan to define major releases of project and phases -Define configuration management practices -Define testing strategy for user acceptance, quality assurance and other necessary testing	Project Schedule, Release Specifications, Software Development Plan, Test Strategy, Quality Assurance (QA) Test Plan Risk Management Plan, User Interface Design Documents, Solution Design Document
Procurement	
-Create Request for Information (RFI) or Request for Proposal (RFP) for external vendor services or products -Evaluate and select externally provided services or products	RFI/RFP, Procurement Management Plan, Contract Statement of Work
Rapid Prototype/Pilot	
-Rapid prototype development and evaluation to refine requirements and prove concept -Pilot of proposed solution on small scale and over limited timeframe to prove concept and refine requirements -Update schedule and cost baseline based on discoveries from elaboration phase	Prototype (executable version of function and interface), Requirements Survey, Pilot program, Evaluation of Pilot, Scope Management Plan

Business Event	Typical Deliverables
Development Phase	
Software Development Initiation	
-Refine and execute practices for artifacts & configuration -Review work performed in prior iterative period, prioritize and assign work to be done in next iterative period -Coordinate updates to system inter-dependencies -Develop operations plan -Define and document architecture specifications -Develop and validate high value/high risk requirements of architecture components	Software Architecture Description Document, Software Development Plan, Iteration Plan, Operational Plan, Software Design Description
Rapid Development Risk Evaluation	
-Studies and analysis are performed during development environment to identify potential risks based on requirements & developed iteration	Risk identification and Mitigation Plan, Contingency Plan
Coding and System Design	
- Execute practices for version control of all software development artifacts - Create, design and modify system and associated hardware; coding and continuous refining. -Update project plan & business case -Add software development issues to the Issue Log to be prioritized and addressed -Conduct critical design review -Establish and document quality control practices	Software Architecture Document, Development Plan, Updated Project Management Documents, Issue Log, Critical Design Review Memorandum, Quality Management Plan
Testing	
-Identify tests and write test cases or scripts -Install hardware. Conduct unit and integration testing -Create operations manual and requirement documents for users -Document strategy and approach for system implementation (what will be deployed, where, and when) - Prepare turnover package to migration turnover and test readiness review and issue memo -Prepare detailed notes that describe the specific contents of a release for customer or outside testing party -Develop security test report and issue security certification and accreditation -Conduct user acceptance testing	Test Plan, Test Cases Scripts, Test Results, Operations Manual, Implementation Plan, Test Readiness Memorandum, Release Notes, Turnover Package, Transition Plan, Security Test Report, Security Certification and Accreditation, Security Test & Evaluation Plan, Software Architecture Document, Acceptance Test Plan, Acceptance Test Script
Readiness Review and Release	
-Conduct production readiness review and issue memo	Production Readiness Review Memo, Transition Plan, Operational Readiness

Business Event	Typical Deliverables
-Audit and project completion reports finalized -Issue operational readiness memo, certification of production, and final user acceptance testing memorandum	Memorandum, Audit and Project Completion Reports, Certification of Production, Final User Acceptance Testing Memorandum, User Manual, Operational Support Plan, Installation Plan
Post-implementation/ Operational Phase	
Deployment	
-Determine criteria for exiting transition phase controls have been identified and met -Stakeholder provides written approval that product meets documented business requirements -Revise and finalize detail Deployment/implementation plan	Update Project Management Documents, Scope Verification, Deployment/implementation plan
Training	
-Develop training delivery method, schedule, and plan -Develop training materials -Deliver training, record, and deliver webinars and communicate on-demand training	Training Plan, Training Materials, Training Delivery
Data Conversion	
-Development of software to facilitate data transfer or conversion -Develop data cleansing and transfer plan, including protocols for archiving legacy data -Perform activities to cleanse data and format for transfer -Perform mock migrations of data and analyze results -Perform final data migration and validation	Data Transfer Software, Data Transfer Plan, Formatted Data, Mock Migration Results and Analysis Report, Data Migration Validation Report
Operation and Maintenance Activities	
-Subsequent security accreditations (not included in user acceptance testing) -Software diagnostics -Repair processing and/or performance failures -Update documentation -Minor software updates -Minor corrections to design flaws	Accreditation Certification, Diagnostic Reports, Software and Process Documentation
Retirement of Software	
-Information preservation -Configuration management and control -Media sanitization -Hardware and software disposal	Disposal Certification

The common agency practice table highlights IUS practices adopted by the agencies in the areas identified by the IUS working group as common problems. It intends to equip federal agencies with the knowledge and information needed to identify effective IUS practices and does not provide a 'one-size-fits-all' solution; instead, it is designed to give management some practical examples. Users of this TR should use the information provided in these examples to develop their own reasonable business processes. This table covers four areas of IUS development: 1) Identifying Cost, 2) Software Amortization, 3) Enhancement to IUS, and 4) Impairment to IUS.

Illustration Sample #1: Identifying Cost

Problem Statement: Trace Development Cost to Specific Invoice		
Problem Contributing Factors	***Task Force Member Agency***	***Agency Practice***
Cyclical development methodologies make differentiating between development and maintenance costs within an invoice difficult	A	Direct tracing or allocating the invoiced cost with the basis of estimate documented. Use status report or program/project documentation to evaluate activities and identify those that are development activities.
	B	Contractual requirement for vendor to provide a data item description deliverable with the estimate of costs between development and non-development activities along with each monthly invoice submitted.
	C	IUS cost primarily attributable to government labor hours. Quarterly report from the program offices detailing the employee or contract hours for each IUS project phase (preliminary design, development, or operational).
	D	Separate accounting lines used on purchase request and obligation document for development and non-development activity cost by coding every software project on a requisition. The captalizable requisition must be coded with general ledger account IUS-In Development in the accounting string which drives the purchase order and vouchers, thereby requiring the vendor to invoice in accordance with the activity breakouts.

Illustration Sample #2: Software Amortization

Problem Statement: Timing of Commencement of Depreciation/Amortization		
Problem Contributing Factors	***Task Force Member Agency***	***Agency Practice***
Obtaining evidence to support the determination of commencement of amortization	A	Open inter departmental communication facilitates decision to begin depreciation of software.
	B	A sign off document confirming key development milestones such as acceptance test are met.
	C	A certificate of production is issued communicating the software is in production and being utilized.

Illustration Sample #3: Enhancement to IUS

Problem Statement: Define Enhancement to Internal Use Software		
Problem Contributing Factors	***Task Force Member Agency***	***Agency Practice***
Determination of the significance of an enhancement to the IUS; incremental enhancement of capability; and the enhancement associated with new IUS development model	A	Defines enhancement to be the replacement, upgrade, modification, or addition of new features or capabilities to an existing system, product, tool, service, or infrastructure to improve its functionality. It involves a change in the capabilities, requirements, design, and/or architecture.
	B	Add additional capabilities and the enhancement costs are above agency's capitalization threshold. Repair a design flaw or perform minor upgrades that extend the useful life without adding capabilities, the costs are expensed and the useful life of the original asset is adjusted, as necessary.
	C	Enhancement cost exceed capitalization threshold, and when it is more likely than not that such enhancements will result in a significant increase in functionality that is apparent to the user. The cost of routine or minor changes or modernizations that do not significantly add functionality should be expensed in the period incurred. Examples of minor enhancement include updating data tables, web-enabling, customizing reports, or changing graphic user interfaces. Enhancements that may extend the useful life of the software without adding significant capabilities are to be considered minor and expensed.
	D	In Agile development model, enhancement follows the same capitalization criteria threshold for each release separately and tracks each version individually.

Illustration Sample #4: Impairment to IUS

Problem Statement: Determination of Impairment for Internal Use Software		
Problem Contributing Factors	***Task Force Member Agency***	***Agency Practice***
Determination of when the impairment is incurred without sufficient knowledge on the IUS operating status	A	Scenario-based impairment checklist reviewed on a quarterly basis to monitor impairment. The checklist examines the following scenarios: cessation of demand for the IUS asset, changes with an adverse effect on the IUS asset have occurred within the policy, legal or technological environment, plans to discontinue or restructure the IUS asset, the IUS asset is not performing as intended, and elements of the IUS asset functionality are not used as intended.

APPENDIX C: ABBREVIATIONS

AAPC	Accounting and Auditing Policy Committee
COTS	Commercial off The Shelf
DHS	Department of Homeland Security
DOC	Department of Commerce
DOD	Department of Defense
DOL	Department of Labor
DOT	Department of Transportation
EPA	Environmental Protection Agency
FASAB	Federal Accounting Standards Advisory Board
GAAP	Generally Accepted Accounting Principles
HHS	Department of Health and Human Services
IT	Information Technology
IUS	Internal Use Software
NIST	National Institute of Standards and Technology
ODNI	Office of the Director of National Intelligence
OMB	Office of Management and Budget
PP&E	Property, Plant, and Equipment
QA	Quality Assurance
RFI	Request for Information
RFP	Request for Proposal
SEC	United States Securities and Exchange Commission
SFFAS	Statement of Federal Financial Accounting Standards
TR	Technical Release
Treasury	Department of Treasury

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