Reclamation Manual

Directives and Standards

Subject:	Computer Software Costs
Purpose:	Documents for the Bureau of Reclamation's accounting requirements for computer software costs. The benefit of this Directive and Standard (D&S) is properly recording and valuing computer software costs in accordance with Generally Accepted Accounting Principles.
Authority:	Financial Accounting Standards Advisory Board (FASAB) Statement of Federal Financial Accounting Standards No. 10, *Accounting for Internal Use Software*; FASAB Technical Release No. 5 *Implementation Guidance on Statement of Federal Financial Accounting Standards 10: Accounting for Internal Use Software*; and the U.S. Treasury Standard General Ledger (SGL).
Approving Official:	Director, Management Services Office
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1. **Introduction.** This D&S provides requirements for the cost of internal use software either acquired or internally developed.

2. **Applicability.** This D&S applies to all Reclamation employees who participate in the development, approval, and management of internal use software.

3. **Definitions.**

   A. **Direct Cost.** The cost of resources directly consumed by and specifically identified with an activity. Direct costs that must be capitalized for software development may include direct materials, labor for personnel directly involved with the project, associated employee benefits, consultant fees, initial training, and documentation manuals.

   B. **Enhancement.** A modification of an existing software application resulting in a change in design to the software with significant increased capabilities or functionality.

   C. **Indirect Cost.** The cost of resources, primarily administrative in nature, that are jointly or commonly used to produce two or more types of outputs but are not specifically identifiable with a given output.

   D. **Internal Use Software.** Includes purchases of commercial off-the-shelf (COTS) software, contractor-developed software (in which a contractor is hired to substantially develop all of the desired software), and internally developed software (in which software is developed internally by Reclamation employees, with or without a contractor's assistance).

E. **Net Realizable Value.** The estimated amount that can be recovered from selling, or any other method of disposing of an item, less estimated costs of completion, holding, and disposal.

F. **Preliminary Design Stage.** The stage of software development that includes completion of conceptual formulation, technological feasibility, and testing of possible software project alternatives.

G. **Software.** The application and operating system program, procedures, rules, and any associated documentation pertaining to the operation of a computer system.

4. **Responsibilities.**

A. **The Finance and Accounting Division (FAD), Fixed Asset (FA) Accounting Team.** The FAD FA Accounting Team is responsible for amortizing and reconciling software costs to the FA Subsystem.

B. **The Chief Information Office (CIO).** The CIO is responsible for developing and maintaining Reclamation-wide internally developed or commercially purchased software, and informing FAD when software is substantially complete and operational (to facilitate initiating amortization).

C. **The Denver Property Team.** The Denver Property Team is responsible for entering the completed software into the FA Subsystem. This includes the Property Control Number (PCN); useful life based on the catalog code, unless it is determined that a different useful life is more appropriate; and the salvage value percentage for capitalized internal use software, which shall be zero.

D. **The Region 8 Finance Office.** The Region 8 Finance Office is responsible for analyzing and coordinating the review of software in development, SGL 1832, on a quarterly basis, to determine if it meets the criteria for being transferred to internal use software, SGL 1830.

5. **Scope.** This D&S provides requirements for the cost of software developed or obtained for internal use. These include the cost of:

A. software used to operate Reclamation's programs, e.g., financial, administrative, or operational software, including project management;

B. software used to provide Reclamation's goods and services, e.g., water delivery management; and

C. software that is developed or obtained for internal use and subsequently provided to other Federal entities with or without reimbursement.

6. **Criteria for Capitalization.**

A. The costs of internal use software are to be capitalized when total software development costs exceed $100,000, after management authorization of the project, and the estimated useful/service life of the software is 2 years or more. Documentation supporting this decision must be maintained by the software owner.

B. When applying this threshold to bulk purchases of software (e.g., multiple spreadsheet programs for a science center), the total purchase price may be converted to the unit price to decide if the purchased software must be capitalized. For example, if 10 copies of a software program were purchased for $200,000, then the unit price would be $20,000, and this software would not be capitalized. However, using this example, if the purchase price were $2,000,000, then the unit price would be $200,000, and this software must be capitalized in the aggregate.

7. **Capitalizable Costs.**

A. **Internally Developed Software.** Capitalized costs shall include the full cost (direct and indirect costs) incurred during the development, testing, and installation of the software. These costs include those for new software (e.g., salaries of programmers, systems analysts, project managers, and administrative personnel; associated employee benefits; outside consultants' fees; rent; and supplies), initial training, and documentation manuals. Such costs shall be limited to costs incurred after:

(1) management authorizes and commits to a computer software project and believes that it is more likely than not that the project will be completed and the software will be used to perform the intended function with an estimated service life of 2 years or more; and

(2) the completion of conceptual formulation, design, and testing of possible software project alternatives (the preliminary design stage).

B. **Purchased Software.**

(1) **COTS Software.** Capitalized cost must include the amount paid to the vendor for the software. Material internal cost incurred by Reclamation to implement the COTS software and otherwise make it ready for use must be capitalized.

(2) **Contractor-Developed Software.** Capitalized costs must include the amount paid to a contractor to design, program, install, and implement the software. Material internal cost incurred by Reclamation to implement the contractor-developed software and otherwise make it ready for use must be capitalized.

C. **Enhancements.** The acquisition cost of enhancements to previously capitalized internal use software must be capitalized when it is more likely than not that they will result in significant additional capabilities or functionality. Enhancements normally require new software specifications and may require a change to all or part of the existing software specifications. No additional threshold shall be applied to the amount capitalized for this purpose although the cost of minor enhancements resulting from ongoing systems maintenance and the purchase of enhanced versions of software for a nominal charge must be expensed.

D. **Integrated Software.** Computer software that is integrated into and necessary to operate general Property, Plant, and Equipment (PP&E), rather than perform an application, must be considered part of the PP&E of which it is an integral part, and capitalized and depreciated accordingly (e.g., a software program used to operate a hydroelectric power generation plant).

8. **Amortization of Capitalizable Costs.** Capitalized software must be amortized in a systematic and rational manner over the estimated useful life of the software. The estimated useful life used for amortization must be consistent with that used for planning the software's acquisition.

   A. For each module or component of a software project, amortization shall 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 must begin when both that module and the other module(s) have successfully completed testing.

   B. Any additions to the book value or changes in useful life shall be treated prospectively. The change must be accounted for during the period of the change and future periods. No adjustments will be made to previously recorded amortization. When replacing existing internal use software with new software, the unamortized cost of the old software must be expensed when the new software has successfully completed testing.

   C. The salvage value for all capitalized internal use software shall be zero.

9. **Accounting Treatment for Other Related Internal Software Costs (Expenses).** Software costs that are expensed will be billed to users as incurred in accordance with an approved rate setting/cost allocation process. Working Capital Fund software costs will be recovered in accordance with an approved cost recovery plan approved by the Chief Financial Officer's Council. The following items will be expensed as incurred:

   A. The cost of minor enhancements resulting from ongoing systems maintenance.

   B. The purchase of enhanced versions of software for a nominal charge.

C. Costs incurred solely to repair a design flaw or to perform minor upgrades that may extend the useful life or capacity of the software without adding capabilities.

D. Bulk purchases of software, in which the unit price of each copy of a software program is less than $100,000.

E. All data conversion costs incurred for internally developed, contractor-developed, or COTS software, including the cost to develop or obtain software that allows for access or conversion of existing data to the new software. Such cost may include the purging or cleansing of existing data, reconciliation or balancing of data, and the creation of new/additional data.

F. Costs incurred after final acceptance testing has been successfully. Where the software is to be installed at multiple sites, capitalization must cease at each site after testing is complete at that site.

G. Annual license maintenance costs and/or fees.

H. Internally developed, COTS, or contractor-developed software which has either a useful/service life of less than 2 years or has a cost that is under $100,000.

10. **Loss/Impairment/Terminated Software Costs.**

A. **Post-Implementation/Operational Software.**

(1) Impairment of post-implementation/operational software and/or modules must be recognized and measured when one of the following occurs:

(a) the software is no longer expected to provide substantive service potential and will be removed from service, or

(b) there is significant reduction in capability, function, or use.

(2) If the impaired software is to remain in use, the loss due to impairment must be measured as the difference between the book value and either: (a) the cost to acquire software that would perform functions similar to the remaining unimpaired functions; (b) or if that is not feasible, the portion of the book value attributable to the remaining functional elements of the software. The loss must be recognized upon impairment, and the book value of the asset reduced accordingly. If neither (a) nor (b) above can be determined, the book value must continue to be amortized over the remaining useful life of the software.

(3) If the impaired software is to be removed from use, the loss due to impairment must be measured as the difference between the book value and the net realizable value (NRV), if any. The loss must be recognized upon impairment, and the book

value of the asset reduced accordingly. The NRV, if any, shall be transferred to an appropriate asset account until such time as the software is disposed of and the amount is realized.

B. **Developmental Software.** In instances where a manager concludes that it is no longer probable that developmental software (or a module thereof) will be completed and placed in service, the related book value accumulated for the software (or the balance in internal use software development, if applicable) shall be reduced to reflect the expected NRV, if any, and the loss recognized. The following are indications of this:

(1) expenditures are neither budgeted nor incurred for the project;

(2) programming difficulties cannot be resolved on a timely basis;

(3) significant cost overruns occur;

(4) information has been obtained indicating that the cost of developing the software will significantly exceed the cost of COTS software available from third-party vendors; hence, management intends to obtain the product from those vendors instead of completing the project;

(5) newly introduced technologies supersede the developing software product; and

(6) discontinuation of the responsibility unit for which the product was being created.

11. **Analysis of Software in Development.**

A. **Quarterly Review.**

(1) Each quarter, the Region 8 Finance Office is responsible for analyzing software in development, SGL 1832, to determine if software in development has met the criteria for being transferred to internal use software, SGL 1830. The review of each software program or module in SGL 1832 must be completed by the end of each quarter, with the exception of the last quarter, which must be completed by August 31. Amortization begins after the transfer is completed.

(2) Analysis will be facilitated with the use of the *Software in Development Analysis Form* (Appendix A). The Region 8 Finance Office will complete the first three columns on the form, i.e., the 18-Digit Cost Structure, Description of Software, and Cost to Date as of the quarter of analysis. After the first three columns of the form have been completed, it will be forwarded to the CIO or regional office software program manager who will complete the last four columns, i.e., the Estimated Cost to Complete, the Start Date, the Completion Date, and Status/Comments for each software program or module.

(3) Attention must be given to any software program or module that is exhibiting signs that it is nearing completion. Two factors indicating that a software program or module is approaching completion are a significant decrease in activity in the cost account(s) and prior status on the Analysis Form stating that completion is drawing near. The *Software in Development Analysis Form* initiated by the software engineer, project manager, program manager, or supervisor in charge of the software development work stating all development has been completed or the software is successfully tested or is in service, may further document the need for transfer to internal use software.

(4) Upon determination by the CIO or regional office software program manager to either transfer costs to internal use software or to maintain costs in software in development, documentation on the *Software in Development Analysis Form* will be maintained by the regional finance office to support the decision.

B. **Criteria for Transfer.**

(1) The key criterion for transferring software in development to internal use software is the completion of successful testing of each module or component of a software project. If the use of a module is dependent on the completion of another module(s), the cost of the first module will remain in software in development until both that module and the other module(s) have successfully completed testing.

(2) All costs of programs or modules deemed to be substantially complete based on this quarterly review shall be transferred to the internal use software account to facilitate accurate amortization.

C. **Process for Transferring Software in Development to Internal Use Software.**

(1) Once a program or module has met the criteria for being transferred to internal use software, adequate documentation to support the transfer in the accounting and property records is essential. The software program manager will complete the *Transfer to Internal Use Software Form* (Appendix B) to start the transfer process. The *Transfer to Internal Use Software Form* must be routed to the appropriate offices to notify them about the transfer and request that they take the appropriate action.

(2) The regional finance office will prepare a voucher to transfer costs from software in development (SGL 1832) to internal use software (SGL 1830). Failure to initiate this transfer in a timely manner misstates the capitalized asset value in both software accounts and delays timely amortization.

(3) The Denver office or regional property team will enter the completed software into the FA Subsystem. This will include the PCN, useful life based on the

catalog code, unless it is determined that a different useful life is more appropriate, and the salvage value percentage, which must be zero for capitalized internal use software.

(4) The Denver FA Accounting Team is responsible for reconciling costs in the FA Subsystem to Federal Financial System.