

APPENDIX E

EXAMPLES OF NASA SOFTWARE CAPITALIZATION COST REPORTS

NASA Software Capitalization Cost Report A
Projects in Development (WIP)

For Month/Quarter Ending: 12/31/2003
 Center Name _____

Report Due Date: 1/16/2004
 Beginning of Period (BOP): 10/1/2003
 End of Period (EOP): 12/31/2003

1	2	3	4	5	6	7	8	10	11	12
Software Name	Contract Number	Projected/Actual Acceptance Date (mm/dd/yy)	Prior Period Cumulative Costs Incurred	Actual Costs Incurred this Period	Less: Costs Transferred to PP&E	Disposals	Actual Total Costs at EOP (WIP)	Comments	Estimated Useful Life	Work Breakdown Structure (WBS)

NASA Software Capitalization Cost Report B

Project Completed (PP&E)

For Quarter Ending: **12/31/2003**

Center Name _____

Report Due Date: **1/16/2004**

Beginning of Period (BOP): **10/1/2003**

End of Period (EOP): **12/31/2004**

1	2	3	4	5	7	8	9					10	12
Software Name	Contract Number	Projected or Actual Acceptance Date (mm/dd/yy)	Prior Period Cumulative Costs Incurred	Actual Costs Incurred this Period	Disposals	Actual Total Costs at EOP (Capitalized)	License Lease Term (years)	Accumulated Depreciation at BOP (\$K)	Depreciation Expense (\$K)	Depreciation related to Disposals	Accumulated Depreciation EOP (\$K)	Comments	Work Breakdown Structure (WBS)

GUIDANCE FOR NASA SOFTWARE CAPITALIZATION COST REPORT**NASA Software Capitalization Report Guidance:**

On a monthly basis, each Center must submit to NASA Headquarters, Office of the CFO, Property Branch, the cumulative *NASA Software Capitalization Cost Reports A and B* (examples shown in NFMR, Volume 6, Chapter 4.14 Appendix A). Supporting documentation (e.g., vouchers, contracts, etc.) for the data reported must be retained at the Center and submitted to the Property Branch, if requested.

The monthly report due date along with the beginning of period (BOP) date and end of period (EOP) dates will appear on the Report forms. Centers will report software costs on Report A for internal use software which was under development (i.e., WIP) during the month. Centers will report software costs on Report B for internal use software that was completed during the month when final acceptance testing was successfully completed.

The following instructions are for populating each numbered field (at the top of each column) on the *NASA Software Capitalization Report* forms A and B. The Property Branch will complete the fields associated with columns that are shaded and unnumbered (i.e., depreciation). Expert information about software development projects supporting NASA missions or NASA administrative functions should be obtained from project managers, software development managers, software development team leaders, or equally knowledgeable persons.

Field 1. Software Name

List internal use software that meets all of the following criteria:

- Either purchased commercially “off-the-shelf,” internally-developed, or contractor-developed solely to meet NASA’s internal needs.
- Operates in a stand-alone mode and is not integrated or necessary to operate hardware or equipment.
- Used to operate NASA’s programs (e.g., financial and administrative software including that used for project management); or to support NASA’s mission’s (e.g., communication software designed to support multiple missions).
- Software developed independently of a mission (i.e., it is not a part of the mission).
- Total projected cost is \$1,000,000 or more, and
- Expected useful life is 5 years or more.

An example of internal use software used on multiple missions is the MODIS Adaptive Processing System (MODAPS) that: generates and distributes data products from a variety of earth observing instruments (MODIS, AVHRR and Landsat); supports several missions (EOS Terra and EOS Aqua); has been re-used in research activities that involve global or continental-scale production of science data products and runs on several computing hardware platforms and under both Unix and Linux operating systems.

Do not list the following software:

- Software developed as part of a research effort.
- Software integrated into and is necessary to operate property, plant and equipment.
- Software that solely supports a single mission (i.e., shuttle, space station, satellites, space probes, etc.) or a single instrument (i.e., James Web Space telescope, Hubble Space telescope, etc.) where current plans are for the software not to be used after the mission ends.
- Software that NASA does not own outright, or for which NASA does not own a lease to operate, such as software provided through the *Outsourcing Desktop Initiative for NASA* (ODIN) contract.

Field 2. Contract Number

List the contract number under which the software was acquired or developed.

Field 3. Acceptance Date

Projected or actual date final acceptance testing will be/was successfully completed and software will be/became operational.

Fields 4 and 5. Full Cost

Full costs (direct and indirect) should be recorded for internal use software implementation¹. No costs should be recorded for software formulation² or operations³. Full costs are defined as: salaries of programmers, systems analysts, project managers, and administrative personnel; associated employee benefits; outside consultants' fees; rent; and supplies, and documentation manuals. Record costs as specified in the following categories:

¹ Software implementation consists of activities such as: design (including configuration and interfaces), coding, installation on hardware, and testing (including parallel processing, if needed).

² Formulation activities consist of: conceptual formulation of alternatives, evaluation and testing of alternatives, determination of existence of needed technology, and final selection of alternatives.

³ Operations activities consist of: data conversion, application maintenance, training, and deployment.

- (a) Commercial off-the-shelf Software (COTS): the amount paid to the vendor for the software and material internal costs incurred by NASA to implement the software and make it ready for use, through acceptance testing.
- (b) Support Contractor Developed Specific NASA Application Software (SCAS): the amount paid to a contractor during software implementation only, and material internal costs incurred by NASA to implement the software and otherwise make the software ready for use, through acceptance testing.
- (c) Civil Servant Developed Specific NASA Application Software (CSAS): full cost (direct and indirect) incurred during software implementation, through acceptance testing.
- (d) Enhancements made by a Support Contractor (ESCAS) or by Civil Servants (ECSAS) to Specific NASA Application Software: record the full costs if the enhancement (i.e., could be new version or release) results in a significant additional capability beyond that for which the software was originally intended. A significant additional capability is one not included in the original software specifications and which costs \$1,000,000 or more to develop (exclusive of all other updates to the software).
- (e) Software Modules (including pilots): list and record each software module and cost separately, if modules are implemented and operated independently. Otherwise list combined modules and record combined costs, if modules are interdependent.
- (f) Software Acquired through Separate Contracts: software and costs should be listed separately if the same software package is purchased under separate contracts. The \$1,000,000 threshold should be applied separately. For bulk purchases of the same software acquired under the same contract, the \$1,000,000 threshold should be applied to the group.
- (g) Bundled Products and Services: allocate the cost of the package among the individual elements on the basis of a reasonable estimate of their relative fair values. Record the costs for the software package, software implementation, installation and testing; do not record costs for training, maintenance or data conversion elements included in the package.
- (h) Software licenses: costs for a multi-year license should be listed in which the total projected cost is \$1,000,000 or more, and the expected useful life of the software is 5 years or more. The following capital lease criteria should be applied:

If the license agreement meets one or more of the following criteria and meets NASA's software capitalization threshold, it is a capital lease:

1. The lease transfers ownership of software to NASA by the end of the lease term.
2. The lease contains an option to purchase the software at a bargain price.
3. The lease term is equal to or greater than 75 percent of the estimated economic life of the leased software (e.g., if useful life is 5 years and lease term is 3 or more years).

4. The present value of rental and other minimum lease payments, excluding that portion of the payments representing executory cost, equals or exceeds 90 percent of the fair value of the software. To evaluate this criterion, determine the purchase price of the software and multiply it by 90 percent. This amount must be equal to or greater than the present value of the software license payments (if it is a standard COTS various sources could be used to provide the list price for the software package).

Field 4. Prior Period Cumulative Costs Incurred

Costs as specified for each software category above from beginning of project (or 9/30/00, whichever is later) through BOP. Report this cost for projects not previously reported.

Field 5. Actual Costs Incurred this Period

Costs as specified for each software category above from beginning of the period through the end of the period to record current month/quarter activity.

Field 6. Less Costs Transferred to PP&E

Report the negative sum of fields 4 and 5 that is entered when the software project is completed during the quarter and costs are transferred to PP&E.

Field 7. Disposals

Report costs of software no longer expected to provide substantive service potential which will be removed from service, or software has incurred a significant reduction in capability, functions, or use (i.e., become impaired).

Field 8. Actual Total Costs to EOP (Capitalized or WIP)

Report the sum of fields 4, 5, 6 and 7 for a cumulative total cost.

Field 9. License Lease Term

The length (in years) of the multiple year license or capital lease, if applicable.

Field 10. Comments

Provide any pertinent comments about the software and its related information.

Field 11. Estimated Useful Life

Provide an estimate of the useful life for the software once it is operational.

Field 12. Work Breakdown Structure (WBS)

Provide the WBS for the software project being reported.