Capitalization of Internal-Use Software Costs
Policy and Procedures

Purpose

To describe the Office of Financial Affairs (OFA) policy and procedures for formulating year-end closing entries related to “Accounting for the Costs of Computer Software Developed or Obtained for Internal-Use” in accordance with Statement of Position (SOP) 98-1 issued by the AICPA on March 4, 1998.

Introduction and Background

SOP 98-1, as with most authoritative literature, was issued to clarify and eliminate inconsistencies in the accounting treatment for the costs of developed or obtained software for internal-use. The SOP clarifies the costs of software as either (a) software to be leased, sold, or otherwise marketed (FASB 86); (b) software to be used in research and development (FASB 2); (c) software developed for others under contract accounting standards; or (d) internal-use software which is subject to this SOP.

The University’s Policies and Procedures have incorporated SOP 98-1.

Policy

1. Capitalization Criteria

Four criteria must be met before a software project's costs can be capitalized under SOP 98-1 and in accordance with the University’s policy. The criteria are as follows, with pertinent guidance referenced in quotes at the end of each.

A. Software is for internal-use. (SOP 98-1, paragraph.12)
   1. The software is acquired, internally developed, or modified solely to meet the entity’s internal needs.
   2. During the software’s development or modification, no substantive plan exists or is being developed to market the software externally.

B. It is probable that the expenditures will result in additional functionality that was not previously available (e.g., from version 1.0 to version 2.0). Development required for routine maintenance or to apply fixes (e.g., going from version 1.0 to version 1.1) does not meet the criteria. (SOP 98-1, paragraph .24)

C. The software being developed and/or implemented has an expected life cycle of two years or greater. (SOP 98-1, paragraphs .36 -.38)
D. The software's total qualifying costs to capitalize are expected to exceed $500,000. In the event that a project is completed in phases, this materiality threshold would apply to each phase. If the project was previously determined to have less than $500,000 in qualifying costs, but then subsequently changes so that future expected costs exceed $500,000 (e.g. a change in project scope), the project costs would then be capitalized on a go-forward basis. The following table illustrates how this concept should be applied under various scenarios. (VU Materiality Policy established in FY 2007 by the Associate VC of Finance; SOP 98-1, statement on materiality following paragraph .44)

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Expected Qualifying Costs at Start of Project</th>
<th>Capitalized Year 1 (Actual Costs)</th>
<th>Capitalized Year 2 (Actual Costs)</th>
<th>Capitalized Year 3 (Actual Costs)</th>
<th>Total Amount Capitalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 2</td>
<td>$600,000</td>
<td>$300,000</td>
<td>$350,000</td>
<td>$50,000</td>
<td>$400,000</td>
</tr>
<tr>
<td>** Scenario 3</td>
<td>$400,000</td>
<td>$0, Not Tracked</td>
<td>** $250,000</td>
<td>$230,000</td>
<td>$480,000</td>
</tr>
</tbody>
</table>

* Although actual costs are only $400k, this project is capitalized since estimated costs were > $500k at start of project.
** Due to a project scope change at the beginning of year 2, the total estimated costs for years 2-3 were expected to be $520,000, therefore the costs are capitalized on a go-forward basis.

2. Stages of Developing or Obtaining Software

SOP 98-1 defines the following three stages to developing or obtaining software for “Internal-Use” along with their prescribed accounting treatment as “expensed” or “capitalized”.

A. **Preliminary project stage**: All expenses in the preliminary project stage must be expensed. This includes making strategic decisions, determining the performance requirements, and selecting vendors and/or consultants.

B. **Application development, design, and implementation stage**: Costs incurred during the application development stage should be capitalized. This does not include training costs. Training costs are not considered software development costs and should be expensed. Data conversion and access costs are generally expensed unless the costs incurred were for the purchase or development of software that allows access or conversion of old data by new systems, then the costs may be capitalized. In addition, costs associated with developing the application’s database are also capitalized. General and Administrative costs and Overhead costs are to be expensed as incurred.

Specific application development costs that may be capitalized include only:

1. External direct costs of materials and services in developing or obtaining internal-use software (e.g., consultant costs), costs of computer software...
purchased from third parties, and travel expenses of employees incurred in duties directly associated with developing software;

2. Payroll and benefit costs for employees who are directly associated with and devote time to the internal-use computer software project; and

3. Interest costs incurred while developing the software.

C. *Post-implementation/operation stage:* Costs during this stage are to be expensed as incurred. Training and maintenance costs must be expensed when they are incurred.

3. **Capitalization Period**

Capitalization of costs should begin when all of the following has occurred.

1. Preliminary project stage is completed.
2. Management authorizes and commits to funding the computer software project.  
   a. Examples of authorization include the execution of a contract with a third party to develop the software, approval of expenditures related to internal development, or a commitment to obtain the software from a third party.
3. It is probable that the project will be completed.
4. It is probable that the software will be used to perform the function intended.

Capitalization should cease no later than the point at which a computer software project is substantially complete and ready for its intended use. Software is considered “ready for its intended use” after all substantial testing is completed. Software testing by pilot departments is still considered “in progress”, although the testing may occur in the production environment.

The one-year period used by Vanderbilt for capitalizing allowable costs is June 1st through May 31st. The period is one-month earlier than VU’s normal fiscal year to allow time for preparing this journal entry.

4. **Amortization**

SOP 98-1 states that the costs: (SOP 98-1, paragraphs .36 -.37)

1. Should be amortized on a straight-line basis unless another systematic and rational basis is more representative of the software’s use.
2. Should be amortized with an estimated useful life that takes into consideration the effects of obsolescence, technology, competition, and other economic factors. Given the history of rapid changes in technology, software often has had a relatively short useful life.

Vanderbilt’s policy is to amortize software costs on a straight-line basis over five years.
Amortization will begin when computer software has completed all substantial testing and is ready for its intended use. Amortization begins regardless of whether the software will be placed in service in planned stages that extend beyond a reporting period. In some instances, the functionality of a module or phase may be dependent upon the subsequent development of additional software/modules. In this instance, amortization should begin for the functionally dependent module when the subsequent module is “ready for intended use”. (SOP 98-1, paragraph .38)

5. Other Considerations

Impairment (SOP 98-1, paragraph .34)

Internal-Use Computer Software Marketed (SOP 98-1, paragraphs .39 -.40)

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Procedures

Departmental Procedures

1. Planning Procedures

Projects and their application development stage expenses should be identified for budget purposes annually, if possible, and incorporated in such as approved. Presently, software-development costs are budgeted the same as other expenditures for the applicable departments conducting the development work, notwithstanding that such costs may end up ultimately capitalized for corporate-level reporting under SOP 98-1.

The department should notify the Office of Financial Affairs once management has authorized and committed to funding a computer software project and it is probable that the project will be completed and the software will be used to perform the function intended. The following information should be provided to OFA at this time:

- Detailed description of the project scope in terms of anticipated benefit/purpose and any functional relationship to other current or planned development projects.
- Total estimated costs of project.
- Expected start date for project’s development phase.
- Expected date that software will have completed all substantial testing and be ready for its intended use.
2. Year-End Procedures

June - 1st Week
At the beginning of June each year, the following departments are responsible for providing a list of qualifying SOP 98-1 projects, along with the functional department and department contact involved with the project’s development, to the Office of Financial Affairs.

- Management Information Systems (MIS)
- Information Technology Services (ITS)
- Department of Finance (DOF)

Once the lists are received, the Office of Financial Affairs will follow up with each functional department identified to determine whether additional functional expenses need to be compiled.

Mid-June
Each department (including the three noted above and all functional departments identified) will submit the following information to the Office of Financial Affairs.

- **Project Documentation** which describes software use and supports capitalizing the software’s development expenses. Each of the four capitalization criteria should be addressed within the documentation.
- **Project Timeline** which, at a minimum, identifies the beginning and ending of the Development stage.
- **Software Development Costs Schedule** that itemizes the total software development costs for the June 1st through May 31st period. This schedule should include the following information:
  - List of projects worked on during the year with their status. All open and completed projects must be included.
  - Labor Hours spent on each project by employee and each employee’s hourly rate. In addition, the center number that each employee’s salary and benefits was charged to must be listed. This will allow the Office of Financial Affairs to adjust the proper center when preparing the capitalization journal entry.
  - If applicable, consulting fees by project with cost center and account number charged.
  - If applicable, purchased software costs by project with cost center and account number charged.
  - An estimate of training and other non-capitalized costs included in the information provided. If training hours are excluded, a statement confirming that fact should be provided.
  - The “Non-Federal Fringe Rate” assigned to each department.
The Office of Financial Affairs will provide a template for each department to use in preparing this schedule. See Appendix B for a sample schedule.

**Office of Financial Affairs Procedures**

**Note:** The timing for each task shown below is approximated. For detailed timing, please see the Workflow Calendar located within each year's Software Capitalization binder.

**March - 1st Week**
1. Determine whether any accounting guidance was issued during the year pertaining to capitalization of software costs.
2. Prepare a current year binder, including a detailed workflow calendar, and provide to the Assistant Controller for review.
3. Once reviewed, forward the workflow calendar to the person updating the year-end task database so that the workflow calendar dates will be properly reflected in the Year-End tasks.
4. Schedule a meeting with the Controller for early May

**May – 1st Week**
The accountant will meet with the Controller to discuss the workflow calendar, software development activity in the current fiscal year, as well as whether any changes need to be made to VU's Software Capitalization Policy.

**May - 3rd Week**
The OFA accountant will send out email requests for information to MIS, DOF, and ITS. The email will include two separate "reply by" dates; an earlier date (1st week of June) for providing the list of qualifying projects, along with the functional department and department contact involved with the project's development, and a later date (mid-June) for providing all remaining information. (See Departmental Procedures for details on what comprises remaining information.)

**June - 1st Week**
The OFA accountant receives each central department’s list of qualifying projects and the names of the functional departments involved with each project.

**June - 2nd Week**
A conference call is held with the Controller, Assoc. Controller, Asst. Controller, MIS Director, and the OFA accountant to discuss each project initially identified to ensure that each qualifies for capitalization under SOP 98-1 and VU Policy. Following the
conference call, the accountant follows up with each functional department identified to determine if there are additional functional expenses to be capitalized.

June - 3rd Week
The OFA accountant receives each department’s Project Documentation, Project Timeline and Software Development Costs Schedule, and begins preparation of the software capitalization journal entries.

June - 4th Week
The OFA accountant will prepare the journal entries and then send to the Assoc. Controller, Asst. Controller and impacted departments for review. This will allow each affected department to review total costs for reasonableness and verify that all qualifying costs have been included in the analysis. Once each department has confirmed their total expenses, the OFA accountant will provide the final journal entries to the Controller for review. See Appendix C for sample journal entries.

July - 1st Week
Once the entries are approved, the accountant will submit a JE upload to the acct-upload@vanderbilt.edu mailbox for posting to the general ledger by first close. In addition, the accountant will provide a final schedule to OCGA detailing the additions (i.e. completed projects) and disposals (i.e. impairments) for updating the fixed assets system. (Note: OCGA must receive the schedule no later than one week prior to 2nd close.)

Note: OCGA reviews accounts 740XX monthly and reconciles transactions against items capitalized and entered into the Fixed Asset System. Any software purchase identified during OFA’s software capitalization procedures that was not charged to a 740XX account should be brought to OCGA’s attention.

July - 2nd Week
Once the completed projects have been loaded into the fixed assets system, OCGA will provide a detailed listing of all software asset changes to the OFA accountant for review. The OFA accountant will verify that all software additions (i.e. completed projects) and disposals (i.e. impaired assets) were properly keyed into the fixed assets system by verifying the asset description, cost, and useful life.

The Medical Center, except VUH/TVC, will prepare capitalization entries quarterly. VUH/TVC will capitalize through monthly accumulations to the plant fund.

**Related Documents**

See Permanent File for:
• Statement of Position 98-1 Accounting for the Costs of Computer Software Developed or Obtained for Internal-Use
• VU Asset Capitalization Policy Excerpt

See SOP 98-1 Workflow Calendar within work paper binders for the timing of each year’s OFA procedures

Trustee and Effective Dates

This document was reviewed by Linda Neenan.

For continued applicability and updating of this policy and procedure:
Trustee: Jeremy Williams

Effective: July 2002

Last Revised: April 13, 2009
### Capitalization of Internal-Use Software Costs P&P.doc

**Appendix A – Sample Schedule**

<table>
<thead>
<tr>
<th>Gift Processing Re-engineering</th>
<th>Online Giving</th>
<th>ePac 2 and 3</th>
<th>Total HS</th>
<th>Hours * 95% (to exclude training costs)</th>
<th>Hour Rate</th>
<th>Salary Total</th>
<th>Benefits</th>
<th>Grand Total</th>
<th>Cost Center Charged</th>
<th>Account Charged</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alice Reiman</td>
<td>520</td>
<td>38</td>
<td>606</td>
<td>575</td>
<td>$23.32</td>
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<td>3,345</td>
<td>15,779</td>
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<td></td>
</tr>
<tr>
<td>Butler Boyda</td>
<td>345</td>
<td></td>
<td>565</td>
<td>525</td>
<td>$26.56</td>
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<td>3,275</td>
<td>15,088</td>
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<tr>
<td>Charlie Caruthers</td>
<td>750</td>
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<td>1,849</td>
<td>1,718</td>
<td>$24.94</td>
<td>40,689</td>
<td>0,816</td>
<td>41,505</td>
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<tr>
<td>Dan Doggins</td>
<td>360</td>
<td>40</td>
<td>400</td>
<td>350</td>
<td>$42.27</td>
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<td>Esther Ehrich</td>
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<td></td>
<td>1,400</td>
<td>1,300</td>
<td>$14.42</td>
<td>15,183</td>
<td>5,160</td>
<td>20,343</td>
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<td></td>
</tr>
<tr>
<td><strong>Total Labor</strong></td>
<td>2,220</td>
<td>1,135</td>
<td>3,355</td>
<td>3,144</td>
<td></td>
<td>124,239</td>
<td>33,437</td>
<td>157,736</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Consultant Fees**

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
<th>95% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>800</td>
<td>$100</td>
<td>1000</td>
<td>$100,00</td>
</tr>
<tr>
<td>B</td>
<td>450</td>
<td>$75</td>
<td>33,750</td>
<td>33,750</td>
</tr>
<tr>
<td>C</td>
<td>1000</td>
<td>$80</td>
<td>80,000</td>
<td>80,000</td>
</tr>
</tbody>
</table>

**Software Purchases (Shown in Dollars, not Hours)**

- Software Vendor Company: Corp. of America
  - 50,000

**Total Software**

- 50,000

Note: All Consulting Fees were charged to account 63500 and are 100% development related.

**Total Consulting**

- 212,756

Note 1: This schedule was prepared by Frederick Thompson (Dep't Administrative Officer) and approved by Barack Obama (Dep't Director).

Note 2: An estimate of 95% of total time was used for training. Therefore, total time was multiplied by 95% and that number was used to calculate costs that could be capitalized.

Note 3: Benefits are based on the 2009/2010 approved fringe rate for Non-Federal University Staff of $35.20.
## Appendix B – Sample Journal Entries

### Operating Fund (CY Projects):

<table>
<thead>
<tr>
<th>Account</th>
<th>Center</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalized Internal Software</td>
<td>74085</td>
<td>1-55-120-0000</td>
<td>2,694,933</td>
</tr>
<tr>
<td>Salary Cr Cap Int Software</td>
<td>54981</td>
<td>1-55-120-0000</td>
<td>2,018,690</td>
</tr>
<tr>
<td>Fringe Cr Cap Int Software</td>
<td>59981</td>
<td>1-55-120-0000</td>
<td>518,803</td>
</tr>
<tr>
<td>Consulting &amp; Mgmt</td>
<td>63500</td>
<td>1-55-120-0000</td>
<td>157,440</td>
</tr>
</tbody>
</table>

To capitalize MIS labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

<table>
<thead>
<tr>
<th>Account</th>
<th>Center</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalized Internal Software</td>
<td>74085</td>
<td>1-55-110-0000</td>
<td>271,953</td>
</tr>
<tr>
<td>Salary Cr Cap Int Software</td>
<td>54981</td>
<td>1-55-110-0000</td>
<td>216,868</td>
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<tr>
<td>Fringe Cr Cap Int Software</td>
<td>59981</td>
<td>1-55-110-0000</td>
<td>55,085</td>
</tr>
</tbody>
</table>

To capitalize DOF labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

<table>
<thead>
<tr>
<th>Account</th>
<th>Center</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalized Internal Software</td>
<td>74085</td>
<td>1-55-200-0000</td>
<td>335,085</td>
</tr>
<tr>
<td>Salary Cr Cap Int Software</td>
<td>54981</td>
<td>1-55-200-0000</td>
<td>94,093</td>
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<tr>
<td>Fringe Cr Cap Int Software</td>
<td>59981</td>
<td>1-55-200-0000</td>
<td>24,182</td>
</tr>
<tr>
<td>Consulting &amp; Mgmt</td>
<td>63500</td>
<td>1-55-200-0000</td>
<td>216,810</td>
</tr>
</tbody>
</table>

To capitalize ITS labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

<table>
<thead>
<tr>
<th>Account</th>
<th>Center</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalized Internal Software</td>
<td>74085</td>
<td>1-55-217-0000</td>
<td>51,424</td>
</tr>
<tr>
<td>Salary Cr Cap Int Software</td>
<td>54981</td>
<td>1-55-217-0000</td>
<td>40,917</td>
</tr>
<tr>
<td>Fringe Cr Cap Int Software</td>
<td>59981</td>
<td>1-55-217-0000</td>
<td>10,508</td>
</tr>
</tbody>
</table>

To capitalize HR labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

<table>
<thead>
<tr>
<th>Account</th>
<th>Center</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalized Internal Software</td>
<td>74085</td>
<td>1-55-115-0000</td>
<td>12,952</td>
</tr>
<tr>
<td>Salary Cr Cap Int Software</td>
<td>54981</td>
<td>1-55-115-0000</td>
<td>10,304</td>
</tr>
<tr>
<td>Fringe Cr Cap Int Software</td>
<td>59981</td>
<td>1-55-115-0000</td>
<td>2,648</td>
</tr>
</tbody>
</table>

To capitalize OCGA labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.
To capitalize DAR labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

| Capitalized Internal Software | 74085 | 1-44-610-0000 | 153,481 |
| Salary Cr Cap Int Software    | 54981 | 1-44-610-0000 | 122,101 |
| Fringe Cr Cap Int Software    | 59981 | 1-44-610-0000 | 31,380  |

To capitalize Registrar labor costs and consulting fees related to SOP 98-1 projects with total capitalizable costs equal to or greater than $100,000 per project.

| Capitalized Internal Software | 74085 | 1-50-430-0000 | 30,977 |
| Salary Cr Cap Int Software    | 54981 | 1-50-430-0000 | 24,644 |
| Fringe Cr Cap Int Software    | 59981 | 1-50-430-0000 | 6,333  |

Plant Fund (CY Projects):

| Internal Software             | 19085 | 8-97-985-1005 | 1,407,332 |
| CIP Internal Software         | 19055 | 8-97-985-1005 | 2,143,472 |
| Expended for Plant            | 34620 | 8-97-985-1005 | 3,550,805 |

To begin amortizing completed current year projects.

Plant Fund (PY Projects):

| Internal Software             | 19085 | 8-97-985-1005 | 348,883.96 |
| CIP Internal Software         | 19055 | 8-97-985-1005 | 348,883.96 |

To begin amortizing completed 2006 projects.