

HF710: Managing the Development of Information Products

Work Breakdown Structure (WBS) for the OpenOffice Suite Assessment Project

Document Version 1.4

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1.0 Document Information

This section provides general information about this Work Breakdown Structure (WBS) document.

1.1 Revision History

The revision history will be one method used by the project team to keep track of WBS document modifications.

Document Version	Revision Date	Author	Description of Changes
1.0	04/07/01	Jennifer M. Hocko	Modify existing team WBS template for new project; incorporate comments received from management during last project.
1.1	04/10/01	Jennifer M. Hocko	Inserted Bob's Spreadsheet application scenarios.
1.2	04/12/01	Jennifer M. Hocko	Incorporated edits and additions based on team's in-class brainstorming session (mostly in Section 2.0, Project Definition).
1.3	04/13/01	Jennifer M. Hocko	Minor revisions to Section 2.5.
1.4	04/15/01	Jennifer M. Hocko	Incorporation of Section 8 from Bob and minor, final revisions.

1.2 Purpose

The purpose of this Work Breakdown Structure (WBS) document is to identify, organize and plan for the successful completion of the OpenOffice Suite Assessment Project. Upon project completion, it will be used as planning input for our final report.

1.3 Scope

This WBS document is intended to help define the scope of the OpenOffice Suite Assessment Project. Version 1.4 of this document will be used as a baseline for project activities, and will be modified as necessary using our team's established change management process.

2.0 Project Definition

This section provides a detailed description of the project definition arrived at by the consultants of Waltham Interactive Design. The information in this section will be periodically accessed to ensure that the team remains on task.

2.1 Audience

The audience for this project are members of the management and engineering staff at Sun Microsystems, who have responsibilities for the success of the OpenOffice Suite project.

2.2 Purpose and Context

Keeping in mind the competitive features of other Office products, Waltham Interactive Design will take a critical look at the usability of OpenOffice as the first step toward an upgrade of the new product. During this assessment, the project team will work within the following context:

- OpenOffice was designed to compete head-to-head with Microsoft's Office 2000 in delivering highly integrated applications.
- OpenOffice was designed with customizable menus, various tool tips, and wireless support (through an agreement with Palm, Inc.).
- OpenOffice's dozen or so applications cause the product to start more slowly than its competitors.
- OpenOffice is about to release StarPortal, a browser-based tool that enables OpenOffice to deliver network-centric services to users.
- OpenOffice does not closely emulate the Windows-desktop metaphor as the default starting point into product features, offering instead a slightly different interface strategy.
- OpenOffice was designed to work across a variety of platforms.

2.3 Marketing Strategies and Implications

The usability of the OpenOffice suite poses several important marketing implications for Sun and the open source initiative. First, Sun believes that an open source strategy will allow them to take advantage of technical innovation no matter where that innovation might occur (instead of relying on just their own, internal development staff). Therefore, one might expect that with the effort and brainpower of professionals around the world, the OpenOffice suite would be more feature-rich and more usable than its nearest competitor (although it might not be as popular). Second, Sun believes that this strategy will expand the market for their product more successfully than those of proprietary systems and third, that the cross-platform compatibility and standardization offered by the OpenOffice suite gives them an advantage over the competition. While cross-platform compatibility and standardization may be an important feature for those on non-Microsoft operating systems, it will be interesting to learn how the OpenOffice Suite works with Microsoft operating systems, since that is where the real challenge lies.

Sources: <http://www.openoffice.org/> and <http://www.sun.com/staroffice/openoffice>.

2.4 Scope

The pre-upgrade assessment consists of two parts. First, the project team will conduct a critical-incident accounting of OpenOffice's performance by focusing on a related set of tasks. To accomplish this, we have devised a set of simple office scenarios that will serve as the framework for this portion of the assessment (described in Section 2.5, Office Scenarios). Second, the project team will conduct a comparable review using Microsoft Office 2000. To accomplish this, we have devised an approach and set of evaluation criteria that will serve as the framework for this portion of the assessment (described in Section 2.6, Assessment Approach and Criteria).

2.5 Office Scenarios

Because each member of our project team has experience using various office-related applications to compile final project deliverables, we decided that a few of these tasks could be used as office scenarios. As such, Waltham Interactive Design team members will evaluate the suites and applications as listed in the following table.

Office Suite	Word Processing Application	Spreadsheet Application	Presentation Application
Microsoft Office 2000	Microsoft Word	Microsoft Excel	Microsoft PowerPoint
OpenOffice 6.0	Text Document	Spreadsheet	Presentation

This section describes the simple office scenarios our project team will use as goals during our evaluation of the office suites.

2.5.1 Word Processing Application Scenario

In the word processing application scenario, the user will try to achieve the following goals.

2.5.1.1 Create a New Style for Assignment to Document Text

Although it is likely that the word processing applications in both suites have a set of predefined styles available for use, the purpose of this goal is for the user to create a brand new style for subsequent assignment to text within the document. The style to be created will have the following characteristics:

- Name: UserDefStyle
- Font face: Helvetica
- Size: 14 pt
- Font style: Bold italic
- Spacing: 6 pts before, 6 pts after

- Indentation: 0.5 inches
- Alignment: left

For the purposes of the evaluation form, this will be considered word processing application goal #1 (see Section 2.6, Assessment Approach and Criteria).

2.5.1.2 Assign the New Style to Text

As a follow on to the first goal, the user will attempt to apply the newly defined UserDefStyle to text within a document. The text the style is applied to will be considered header text in the document; therefore, the user should be able to continue typing body text in the normal style immediately following the header.

For the purposes of the evaluation form, this will be considered word processing application goal #2 (see Section 2.6, Assessment Approach and Criteria).

2.5.1.3 Tracking Modifications

The purpose of this goal is to determine how well the word processing applications handle the tracking of document modifications. This feature of the applications is particularly useful for collaborative writing activities. To accomplish this, it is expected that the user (acting as both original author and editor) should be able to:

- Create and save a simple text document (this may or may not be the same document used for the previous two scenarios).
- Locate and use the application's tracking feature to:
 - Insert additional text into the document.
 - Remove text from the document.

Then, save the document with a slightly different filename.

- Locate and review the editor's comments in the edited version of the document, and decide whether to accept or reject each change. For accepted changes, incorporate them into the original document and resave the document.

For the purposes of the evaluation form, this will be considered word processing application goal #3 (see Section 2.6, Assessment Approach and Criteria).

2.5.1.4 Pasting an Existing Spreadsheet Chart into a Document

The purpose of this goal is to test the cross-compatibility of the word processing and spreadsheet applications. To accomplish this goal, the

user will copy a chart from an existing spreadsheet and paste it into the word processing application.

For the purposes of the evaluation form, this will be considered word processing application goal #4 (see Section 2.6, Assessment Approach and Criteria).

2.5.2 Spreadsheet Application Scenario

In the spreadsheet application scenario, the user will try to achieve the following goal.

2.5.2.1 Creating a Chart

The purpose of this goal is for the user to create a chart. The chart to be created will have the following characteristics:

- Chart type: bar chart
- Dimensions: two-dimensional (x and y variables)
- Data points: 16 integers
- Chart size: 4 x 3 inches
- Chart text:
 - Font face: Arial
 - Font size: 7 pt
 - Font style: Normal
- Colors: none (black and white)

For the purposes of the evaluation form, this will be considered spreadsheet application goal #1 (see Section 2.6, Assessment Approach and Criteria).

2.5.3 Presentation Application Scenario

In the presentation application scenario, the user will try to achieve the following goals.

2.5.3.1 Creating a Simple Presentation

The purpose of this goal is for the user to create a simple presentation, which consists of the following sub-goals:

- Select a predefined presentation template.
- Create a title slide.
- Create a slide consisting of a subtitle and three bullet points.

- Create a slide consisting of a subtitle, a clipart graphic, and two bullet points.

For the purposes of the evaluation form, this will be considered presentation application goal #1 (see Section 2.6, Assessment Approach and Criteria).

2.5.3.2 Pasting an Existing Spreadsheet Chart into a Presentation

The purpose of this goal is to test the cross-compatibility of the presentation and spreadsheet applications. To accomplish this goal, the user will copy a chart from an existing spreadsheet and paste it into the presentation application.

For the purposes of the evaluation form, this will be considered spreadsheet application goal #2 (see Section 2.6, Assessment Approach and Criteria).

Note: It is expected that there may be multiple ways to accomplish these goals within each application. Therefore, the user will execute the tasks they believe will allow them to successfully accomplish each goal (according to their mental model). If problems arise, the user may consult the product's documentation or other user support for guidance.

2.6 Assessment Approach and Criteria

This section describes the project team's approach to the assessment and provides some information about the criteria that will be used in the assessment.

2.6.1 Approach

The project team used a combination of the critical-incident assessment criteria described in the project assignment handout (see Critical-incident Assessment Criteria) and Nielsen's Ten Usability Heuristics (see Nielsen's Ten Usability Heuristics) to create a form for evaluation. Each team member will use the same form to record their individual attempts to perform the goals described in Section 2.5, Office Scenarios. Based on the pattern that emerges from this data collection process, the project team will then discuss and select a minimum of 3 usability heuristics for which we found the most interesting information. A sample of the evaluation form can be found in Appendix A.

2.6.2 Critical-incident Assessment Criteria

The critical-incident assessment criteria described in the assignment that were considered in the evaluation form development process are:

- Record where you were within the interface when the incident occurred.

- Briefly describe the type of system interaction you were engaged in when the incident occurred.
- Briefly describe the details of the incident. Indicate the features of the interface and the function that led to the success or failure you experienced.
- Determine how critical the incident was in affecting your ability to complete the task, using the following scale (1 Extremely Non-critical > 7 Extremely Critical).
- Indicate whether you were able to complete the task.
- Identify whether you consulted online help or other user support; record whether the resource enabled you to complete the task.
- Estimate how long it took you to complete the task, or estimate how long you worked at the task before giving up.
- Indicate whether the time spent was acceptable or unacceptable.

2.6.3 Nielsen's Ten Usability Heuristics

The specific human factors/usability criteria by which the project team will assess the two office product suites are taken directly from Nielsen's Heuristics for User Interface Design (listed below). The details of these heuristics can be found at http://www.useit.com/papers/heuristic/heuristic_list.html.

- Visibility of system status
- Match between system and the real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help users recognize, diagnose, and recover from errors
- Help and documentation

3.0 Project Deliverables

The final deliverables for the OpenOffice Suite Assessment Project are as follows:

- A 12 – 14 page memorandum document that contains information about the OpenOffice Suite Assessment project efforts according to the predefined project criteria, research, and any consultation of outside resources. This document will contain an executive summary, a detailed discussion of our findings, and a conclusion. It may or may not contain recommendations for improvement. The detailed discussion will describe both positive and

negative findings (as appropriate) and provide evidence to support all findings (3-5 published sources documented by MLA style standards). The discussion will also include information about the effects our team experienced when specific interface tasks went well and when they did not, a description of these effects from the standpoint of users, and any marketing implications those effects may have.

- A short presentation of the project team's findings. The team presentation will consist of a 10-minute walkthrough of the findings using Microsoft PowerPoint slides.
- Post-implementation handout. Attached to the memorandum will be a one-page handout containing an abbreviated discussion of project management issues. This handout will focus on a PEAT results (including the question the team selected for discussion), the project time-on-task costs, activities that took more/less time than expected, and an evaluation of the knowledge management process used to develop the team's findings.
- The project journals of each team member.

4.0 Project Quality

The team agreed on the following guidelines and standards to ensure project quality:

- The team selected our next dedicated project manager in adherence to the suggested rotation policy. We nominated Bob Lim to this position.
- The team will participate in a weekly meeting scheduled every Sunday from 11AM to Noon by telephone conference call. The company Jen Hocko works for graciously donated telephone service. Other meeting times will be decided on an as-needed basis. Other possible methods of communication include standard e-mail and telephone communications, or the use of Yahoo Instant Messenger and other Web-based conference software.
- Agenda items for the weekly meeting will be mailed to the project manager by end-of-day on Saturday. The project manager will compile an agenda and e-mail the team by 10AM on Sunday.
- Teamwork is our standard for all projects, and tasks for this project will be divided amongst members in an equitable fashion.
- Division of work will be based on expertise and interest. For example:
 - Bob's expertise in creating project plans in Microsoft Project and in creating tables and charts in Microsoft Excel make him the best candidate to evaluate the OpenOffice Spreadsheet application.
 - Based on their experience in technical writing/editing and previous HF710 assignments, Jen and Judy volunteered to evaluate the Word Processing and Presentation applications within the OpenOffice Suite, respectively.
- The focus of our initial research, as described in Section 2.0 Project Definition, will be periodically revisited to ensure the project is on course.
- As always, the team will use the MLA style for our bibliography.
- Project tracking will be done in Microsoft Word or Excel, and then possibly exported to Microsoft Project for graphing capabilities.

- The team will track time spent on project activities (by the quarter hour) in a journal, based on the following predefined task categories (sub-bullets indicate what is included in each task category):
 - **Administrative**
 - Creating, reading, responding to e-mail communications.
 - Attending conference calls or in-class group meetings.
 - Time-tracking activities throughout course of project.
 - **WBS Document**
 - Defining user scenarios for suite applications.
 - Writing, reviewing, revising document deliverable.
 - Creating, reviewing, revising Task/Responsibility/Schedule Matrix deliverable.
 - **Assessment Memorandum**
 - Creating, reviewing, revising Assessment Criteria.
 - Performing individual application evaluations.
 - Preparing, discussing, organizing findings.
 - Data gathering (external research).
 - Creating, reviewing, revising drafts of application-specific sections and incorporation of these sections into final deliverable document
 - Final content and copyedit.
 - Printing and other delivery-related activities.
 - **Post-implementation**
 - Completion of PEAT (including choice of relevant question).
 - Individual team member journals.
 - Creating, reviewing, revising team PowerPoint presentation.
- Each team member will install (or have already have installed) virus protection software (of their choice) on the machines used for the project, and will scan all transferred/posted files.
- Each team member will utilize Microsoft Word's tracking feature to help manage document change control. Major revisions will be saved under new filenames.
- The team will use the peer review process that has evolved as the team has worked together. Basically, we e-mail each other with drafts of our work and provide comments as necessary.
- One team member is responsible for integrating content from other team members and ensuring that the final deliverable(s) have a consistent look and feel. That team member (and possibly others) will also perform a content and copy edit toward the final phases of the project.
- Individual drafts contributed by team members will conform to the following quality standards:

- A spell and grammar check will be performed prior to submitting all content to the team member integrating it.
- All references will be cited inline, according to MLA style standards. Inline references will be shown in parentheses, in blue text, with the author and page number (if applicable) separated by a comma as in the following example: (Coe, 23). If the reference is at the end of a sentence, a period will fall outside the parenthesis.
- All references for the bibliography will be complete and delivered in the MLA format that the team has used for prior deliverables.
- The content itself will contain information on all the points the team previously discussed as a group.
- The content will follow the previously defined group outline.

5.0 Project Assumptions and Constraints

This section describes the assumptions and constraints that have been identified by the project team for the OpenOffice Suite Assessment Project.

5.1 Assumptions

Assumptions for the OpenOffice Suite Assessment Project are broken down into a number of areas.

5.1.1 User Profile, Scenarios, and Assessment Criteria

- Our user is college educated and computer literate. At a minimum, the user can accomplish simple tasks using office applications (such as writing and saving a letter in a word processing application, creating a simple chart in a spreadsheet application, or creating a simple presentation in a presentation application).
- The specific goals for this user are defined in Section 2.5, Office Scenarios. The actual tasks required to achieve these goals will be considered as input into the evaluation.
- Prior to individual assessments, the project team has defined the assessment approach and criteria, as described in Section 2.6, Assessment Approach and Criteria.

5.1.2 Management

- Questions will be answered and clarification provided in a timely fashion by management.
- Management will accept the team's project definition.

5.1.3 Resources/Team Members

- The members that currently comprise the project team will be available for the duration of the project.
- All team members have access to computers with connections to the Internet.
- All team members are available for (at least) weekly team meetings via conference call.
- All team members will meet deadlines and quality standards for individual deliverables.

5.2 Constraints

Constraints for the OpenOffice Suite Assessment Project are also broken down into a number of areas.

- The total project duration is 29 days.
- The scope of the memorandum and post-implementation deliverables are based on project assignment statement and any further information revealed by management in class.
- Some memorandum analyses and/or conclusions may become outdated after submission.
- The team may experience communication lag time when using e-mail and Yahoo instant messenger software.
- The team is constrained by the availability of online information sources, such as Internet connections.
- The team requires access to the same OpenOffice Suite software and the same Microsoft Office Suite for comparison purposes.
- Team members have responsibilities outside of class.
- No one from team is a practicing usability engineer and/or interface designer.

6.0 Project Risks

This section describes the risks identified by the project team for the OpenOffice Suite Assessment Project, and provides information on the steps that will be taken to minimize these risks (that is, contingencies).

6.1 Staff

- Project team members may not always be available for meetings and/or project work, due to other work-related, school-related, and/or personal priorities that are unforeseen (sickness, death in family, and so on).

- Project team members might not have the experience necessary to complete both individual or collaborative project tasks. Therefore, it is possible that the project team may need to redefine the project and its scope to more closely align with team member strengths.

6.2 Equipment/Materials

- It is possible that a project team member may misplace project materials and require additional assistance from other individuals.
- During the collaborative writing portion of the project, it is possible that multiple versions of the document may exist, potentially resulting in confusion, loss of data, and or requiring additional rework by the project team.

6.3 Client

This project may be negatively impacted if the client:

- Makes changes to the project requirements or otherwise modifies the assignment.
- Assigns other work during the course of the project duration.
- Adds or removes team members from the project.
- Fails to promptly provide answers to questions or clarifications.
- Does not provide timely reviews and feedback on interim project materials.
- Cancels class or is unable to provide team time during class, thus decreasing amount of time team has to work in a face-to-face collaborative environment.

6.4 Scope

- If the project team does not adequately define the project, there is a risk that there will not be enough time or resources available to complete it, or that some team members may do more or less than they planned on the project.
- Team members performing assessments of different applications within the same product suites must ensure that the level of effort (i.e. goals, tasks, number of items, assessment criteria) is relatively equivalent in scope.
- If individual project team members stray from the project definition, there is a chance for scope creep to occur.
- If project team does not adequately estimate tasks, the time it takes to do tasks, or build in time for iterative review, there is a risk the project may not be completed on time.

6.5 Technology

- This project requires that all team members must have access to the same versions of the same software (OpenOffice 6.0 – with or without the JDK installed, and MSOffice 2000).
- It is possible that at any time, access to required electronic materials may be temporarily lost. This applies in particular to Internet access for research, and/or communication tools such as e-mail, instant messengers, and so on.
- Individual workstations housing project materials could potentially fail or become infected with a virus, resulting in loss of data.
- Final production of the report may be delayed due to printer or other hardware-related issues.

6.6 Delivery

- The team member who owns the final, hardcopy report may have difficulty getting to class on the due date or otherwise be unavailable to turn in the project.
- Due to unforeseen circumstances, it is possible that one or more project team members may be unavailable to deliver a presentation of the final project report.

6.7 Avoidance Measures/Contingencies

- If for some reason one member of the project team is unavailable to attend meetings or complete project work due to professional or personal circumstances, other team members will temporarily accept an increase in workload to help adhere to the project schedule, or else the schedule will be adjusted appropriately.
- Where project team members lack the experience necessary to complete a task, they will seek the assistance of a subject matter expert.
- Project team members will attempt to be responsible with materials that are in their possession. However, if one team member is lacking materials that negatively impact their ability to complete assigned tasks, s/he will immediately inform others on the team, who will photocopy or otherwise distribute the missing materials to the team member as soon as possible.
- The project team will always use Microsoft Word's change tracking feature to mark any revisions they make in a document that will become the final deliverable. Each major revision of the document (determined by the project team) will be saved under a new filename in the following format:

draft_report_MM_DD_YY.
- The project team will regularly question management regarding changes that may impact the project assignment. If changes are made, the project team will re-evaluate the project and promptly inform management of impacts to the project schedule and cost.

- The project team will work diligently to arrive at an acceptable, specific, and qualified definition of the project, and each member will adhere to the definition agreed upon by the group. If at any time a team member encounters an issue based on the project definition/scope, s/he will immediately bring it to the attention of the team (via any standard communication channel, preferably e-mail or telephone), who will evaluate it and if necessary, make modifications. This arrangement constitutes the team's change management process.
- Throughout the course of the project, team members will be required to complete individual assignments and bring their findings to the table for group discussion. In these situations, each team member must be responsible for allocating the necessary time to complete these tasks. This time should include some padding for technical issues. If there is any reason why individual tasks cannot be completed due to technical or other reasons, the team must be informed immediately via e-mail or telephone channels.
- Each team member will install and utilize virus protection software of their choice to ensure the stability of project-related materials. If at any time a virus is detected, the infected files and the offending machine should be cleaned by the team member's virus software; if necessary, the project team may revert to an older but safer version of the affected file(s).
- Each team member will print a final version of the report from their personal workstation and bring it to class on the due date. This will help ensure that printer or other hardware-related problems do not affect the team's ability to deliver a completed and professional report to the client.
- Each team member will be prepared to deliver a brief presentation of the team's findings to the class on the due date.
- Frequent communication between project team members is a critical component to risk avoidance. Communication will occur via weekly conference calls, regular e-mail exchanges, in-class group time, instant messaging sessions, the course Web site (Blackboard), and any other means devised by the project team.
- Where project team members are inexperienced, outside resources will be consulted.
- The project will be divided into a series of major tasks, and the main tasks further subdivided into subtasks. Each subtask will be manageable by and assigned to an individual project team member. Adequate time will be allocated in the schedule and other special accommodations made for high-risk tasks. Critical path items will also be identified by the project team and given special attention to ensure their on-time completion.
- Time has already been allocated in the schedule for preparation for the final presentation.
- If not all team members have access to the same version of the Microsoft Office Suite, or the JDK that is part of the OpenOffice Suite, adjustments will be made in the project definition, or attempts will be made to gain access to this software. Also, this fact may be noted in the assessment memorandum to ensure that readers understand the extent and validity of the evaluation(s). As of this writing, only one team member has the JDK installed, which may or may not affect performance.

7.0 Defined Project Activities

The project team has identified the main activities that must be completed as part of the OpenOffice Suite Assessment Project. In the task/responsibility matrix shown below, each main activity is described and further subdivided into subtasks. Subtasks are described, assigned to specific team members, and assigned a date due. This preliminary schedule is based on a number of factors and will be adjusted as necessary.

Project Section	EST. TIME (Hour)	RESOURCE	START DATE	END DATE
PROJECT PLANNING				
Problem Definition				
Install Software	2	ALL	4/4/01	4/11/01
Research OpenOffice to get basic information	2	ALL	4/4/01	4/11/01
<i>Define Scenarios for Suite Comparisons</i>				
Define Goals word processing application	1	Jen	4/4/01	4/11/01
Define Goals for spreadsheet application	1	Bob	4/11/01	4/11/01
Define Goals for presentation application	1	Judy	4/11/01	4/11/01
<i>Assessment Form</i>				
Develop Assessment Form	1	ALL	4/11/01	4/11/01
Design Form	3	Jen	4/12/01	4/14/01
Team Review of Draft Form	1	Judy/Bob	4/14/01	4/14/01
Discuss Comments	1	ALL	4/14/01	4/14/01
Finalize and Distribute Form to Team	1	Jen	4/15/01	4/15/01
WBS Document				
Prepare First Draft	5	Jen	4/7/01	4/7/01
Review and Provide Comments	2	Judy/Bob	4/7/01	4/8/01
Revise Second Draft	2	Jen	4/14/01	4/15/01
Review and Provide Comments	2	ALL	4/15/01	4/16/01
Finalize Schedule	1	Bob	4/14/01	4/15/01
Assign Tasks	1	Bob	4/14/01	4/14/01

Project Section	EST. TIME (Hour)	RESOURCE	START DATE	END DATE
Forward Final Schedule and Tasks Assignment Table	0.25	Bob	4/15/01	4/15/01
Finalize	2	Jen	4/15/01	4/18/01
ASSESSMENT MEMORANDUM				
Outline				
Draft Outline	1	Jen	4/7/01	4/18/01
Team Review and Comment on Outline	1	ALL	4/18/01	4/18/01
Finalize Outline	1	ALL	4/18/01	4/18/01
Data Collection				
Email Chart to Jen and Judy	0.25	Bob	4/15/01	4/15/01
Conduct Evaluation and Software Testing	1	ALL	4/15/01	4/17/01
Document Evaluation in Form	2	ALL	4/15/01	4/17/01
Discuss Findings and Decide on Criteria to Document	1	ALL	4/18/01	4/18/01
Prepare Findings Section of AM	15	ALL	4/18/01	4/22/01
Data Gathering to support findings and conclusions	5	ALL	4/18/01	4/22/01
Report Preparation				
Build Table of Contents from Outline	1	Jen	4/18/01	4/24/01
Write Introduction	2	Jen	4/18/01	4/24/01
Incorporate Approach Section from WBS Document	1	Jen	4/18/01	4/24/01
Incorporate Findings Section	1	Jen	4/18/01	4/24/01
Write Conclusions (based on findings and market implications)	6	ALL	4/18/01	4/24/01
Team Review and Comment of Draft	6	ALL	4/24/01	4/25/01
Revision of Draft	2	Jen	4/26/01	4/26/01

Project Section	EST. TIME (Hour)	RESOURCE	START DATE	END DATE
Team review of Drafts (2)	3	ALL	4/28/01	4/29/01
Revision of Drafts (2)	2	Jen	4/30/01	4/30/01
Editorial and copyedit	2	ALL	5/1/01	5/01/01
Draft Executive Summary and Conclusions	3	TBD	4/23/01	4/25/01
Team Review	2	ALL	4/26/01	4/27/01
Revision	1	Jen	4/28/01	4/28/01
Team Review of Draft	1	ALL	4/29/01	4/29/01
Revision	1	Jen	4/30/01	5/01/01
Finalize and Submit	2	ALL	5/1/01	5/2/01
POST-IMPLEMENTATION				
Journals				
Write Journal	3	ALL	4/25/01	5/2/01
PEAT				
Complete PEAT Survey	2	ALL	4/28/01	4/28/01
Team Select PEAT Question	1	ALL	4/28/01	4/28/01
Post Scores	1	ALL	4/29/01	4/29/01
Presentation				
Discuss Key points for presentation and decide on handout	1	ALL	4/28/01	4/28/01
Draft Intro and Approach Slides	1	ALL	4/28/01	4/28/01
Draft Findings and Marketing Implications Slides	2	ALL	4/28/01	4/28/01
Draft Post-Implementation Slides	1	ALL	4/28/01	4/28/01
Distribute Slides to Each Other	0.25	ALL	4/28/01	4/28/01
Team Review	1	ALL	4/29/01	4/30/01
Revise Slides	1	ALL	4/30/01	4/30/01

Project Section	EST. TIME (Hour)	RESOURCE	START DATE	END DATE
Team Review Draft Final Slides	1	ALL	5/1/01	5/1/01
Finalize Slides	1	ALL	5/1/01	5/02/01
ADMINISTRATIVE				
Conference Calls/Team Time <i>(4 calls @ 1 hr plus 2 hr team per person times 3)</i>	18	ALL	4/4/01	5/2/01
Reading Emails <i>(Assume 3 hours per week for all times 4 weeks)</i>	12	ALL	4/4/01	5/2/01
TOTALS	138.5			

8.0 Project Estimates

Based on the information described in this Work Breakdown Structure, the OpenOffice Suite Assessment Project team has arrived at the following time and cost breakdown.

8.1 Estimated Total Time and Costs

Based on the estimates in table in Section 7.0 and a fee of \$100 per hour, the OpenOffice Suite Assessment Project team estimates that the project cost will be approximately \$13,850 for 138.5 hours of work.

8.1.1 Project Planning

This task includes initial research to aid in the definition of the project, and the preparation of this document and other project tools such as the form to collect the findings. The estimated time to complete these tasks is 29 hours at a cost of \$2,900.

8.1.2 Assessment Memorandum

This task includes conducting the data collection and preparation of the 12 to 14-page assessment memorandum. The estimated time to complete these tasks is 63.25 hours at a cost of \$6,325.

8.1.3 Post-Implementation

Post-project assessment activities include, but are not limited to, the PEAT process (on-line survey and selection of question to include in presentation), individual team member journals, and the final PowerPoint presentation. It was estimated that the project team would spend a total of 16.25 hours on post-project assessment activities at a cost of \$1,625.

8.1.4 Administrative

General administration tasks include, but are not limited to, in-class project time, phone and other virtual conferences, processing and transfer of project-related files, and e-mail communications. It was estimated that the project team would spend a total of 30 hours on general administration tasks, at a cost of \$3,000.