Milestone 3 Plan

for

Team 1

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1 Introduction

1.1 Purpose and Scope

Milestone 3 follows on from the development tasks undertaken during Milestones 1 and 2. Team 1 is investigating the following 3 tickets during the current development sprint:

Ticket 131 - Use real disk usage instead of byte size throughout the web application

Information of disk space usage is being gathered by the Earth application. This is a better and more precise metric for determining where disk space is used. The GUI should be able to use this value instead in all situations.

Ticket 148 - Configuration of daemon should be possible through GUI

The daemon configuration options should be done through the administrative interface of Earth so that starting a daemon on a server is as simple as ./earth_daemon.rb and all options are fed from a central location.
Of course, this has implications that we should be able to add a server to be indexed through the admin interface instead of it being created the first time the daemon runs.

Ticket 174 - Look into making Earth release a gem

It would allow us to automatically deal with the dependencies such as:

- the gems:
  - rcov
  - rails
  - postgres

The remove feature of the daemon is also being considered by Team 1 for Milestone 3.

1.2 Plan Review

This plan will be reviewed at the end of the Milestone 3 development 'sprint'. This plan will be updated if there is a radical change to the requirements of any Milestone 3 task. The changes can be made by any of the team member who should then inform the team leader about these changes. However, significant changes that have a system-wide effect will be deferred to the next milestone to minimize any disruption to the other tasks of the current milestone.

2 Organisation for Milestone 3

2.1 Task Allocations

Tasks for Milestone 3 are being allocated as follow:

2.1.1 Ticket 131: Use real disk usage instead of byte size

Description Cui has been allocated this Ticket given its priority and the importance of real disk usage information for the Earth application. Given the vague description for this ticket on the Trac system, the task has been further sub-divided into subtasks to allow for better allocation of resources and proper monitoring.

Subtasks

1. Need to find the how files are stored in the disk, how much disk space must be used to store a given size file, then the relationship between the file size and actual disk space. (10hrs)
2. Change the byte size to real disk usage. (15hrs)
3. Use the real disk usage in all web applications. (15hrs)
4. Integration Testing (10hrs)

Total Time Estimate 50hrs

2.1.2 Ticket 148: Configuration of Daemon using GUI

Description Fil is being allocated this task for Milestone 3 to allow for the easy re-configuration of the earthd daemon when switching between the three operating modes of the application: development, test and production. This feature is particularly useful during the integration testing phase where regular switching between the various operating modes will be required.

Subtasks

1. Identify all current and available configuration options for the Earth daemon. (5hrs)
2. Design page layout and select appropriate control options such as textboxes and buttons. (15hrs)
3. Implement scripts linking page controls and daemon features. (20hrs)
4. Integration Testing (10hrs)

Total Time Estimate 50hrs

2.1.3 Ticket 174: Creating the Earth Gem

Description George is being allocated this task which involves investigating the process of creating the Earth Gem. The availability of this Gem will have a significant impact on the productivity of developers as less resources (time) is required to re-installing the Earth application.

Subtasks

1. Identify all dependencies for the basic Earth installation (4hrs)
2. Investigate the process of creating a gem of the Earth application (16hrs)
3. Integration Testing (4hrs)

Total Time Estimate 24hrs

2.1.4 Earth Feature: Investigate Implementation of the Daemon Remove Function

Description Alex is being allocated this task which entails investigating the implementation of the Earth application remove function. This is certainly a non-trivial task that the Team has decided to investigate during this development sprint.

Subtasks

1. Conduct exploratory study of ways to implement the Earth remove function (12hrs)
2. Document feasibility of each identified implementation approach (8hrs)
3. Integration Testing (4hrs)

Total Time Estimate 24hrs

2.2 Scheduling

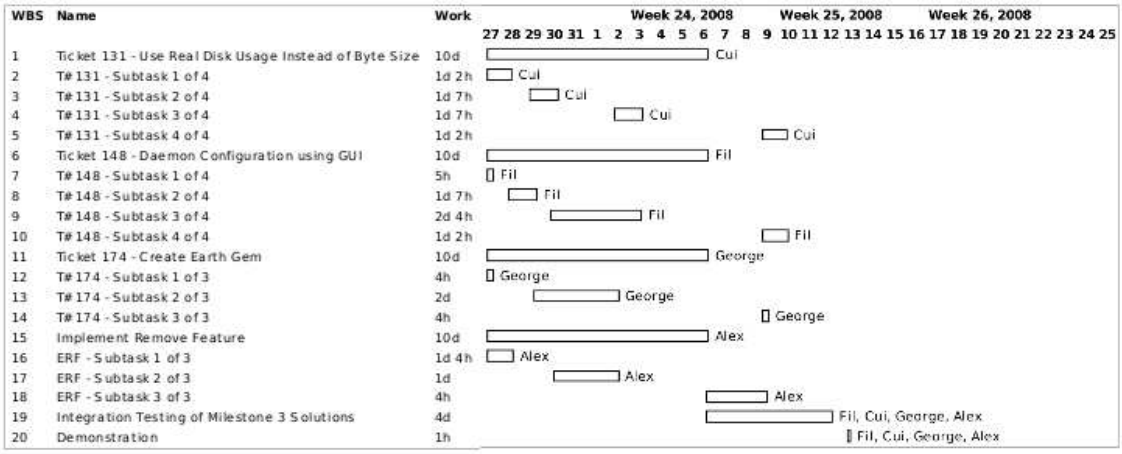
The milestones and tasks are shown graphically in Figure 1 below. This figure shows the relative times between the deadlines of the tasks required and also shows the estimated time for the completion of each individual tasks.

Milestone 3

Company: SEGP2 Group 1

Start: May 27, 2008
Finish: June 13, 2008
Report Date: May 30, 2008

Gantt Chart



Tasks

WBS	Name	Start	Finish	Work	Priority	Complete	Cost	Notes
1	Ticket 131 - Use Real Disk Usage Instead of Byte Size	May 27	Jun 6	10d	1	0%	80	Tue 27 May 2008, 23:22 Fri 30 May 2008, 01:38
2	T# 131 - Subtask 1 of 4	May 27	May 28	1d 2h	1	0%	10	Fri 30 May 2008, 01:41
3	T# 131 - Subtask 2 of 4	May 29	May 30	1d 7h	1	0%	15	Fri 30 May 2008, 01:42
4	T# 131 - Subtask 3 of 4	Jun 2	Jun 3	1d 7h	1	0%	15	Fri 30 May 2008, 01:43
5	T# 131 - Subtask 4 of 4	Jun 9	Jun 10	1d 2h	1	0%	10	Fri 30 May 2008, 01:44
6	Ticket 148 - Daemon Configuration using GUI	May 27	Jun 6	10d	1	0%	80	Tue 27 May 2008, 23:24
7	T# 148 - Subtask 1 of 4	May 27	May 27	5h	1	0%	5	Fri 30 May 2008, 01:53
8	T# 148 - Subtask 2 of 4	May 28	May 29	1d 7h		0%	15	Fri 30 May 2008, 01:55
9	T# 148 - Subtask 3 of 4	May 30	Jun 3	2d 4h	1	0%	20	Fri 30 May 2008, 01:55
10	T# 148 - Subtask 4 of 4	Jun 9	Jun 10	1d 2h	1	0%	10	Fri 30 May 2008, 01:56
11	Ticket 174 - Create Earth Gem	May 27	Jun 6	10d	1	0%	80	Tue 27 May 2008, 23:25
12	T# 174 - Subtask 1 of 3	May 27	May 27	4h	1	0%	4	Fri 30 May 2008, 01:57
13	T# 174 - Subtask 2 of 3	May 29	Jun 2	2d	1	0%	16	Fri 30 May 2008, 01:58
14	T# 174 - Subtask 3 of 3	Jun 9	Jun 9	4h	1	0%	4	Fri 30 May 2008, 01:59
15	Implement Remove Feature	May 27	Jun 6	10d	1	0%	80	Tue 27 May 2008, 23:26
16	ERF - Subtask 1 of 3	May 27	May 28	1d 4h	1	0%	12	Fri 30 May 2008, 02:02
17	ERF - Subtask 2 of 3	May 30	Jun 2	1d	1	0%	8	Fri 30 May 2008, 02:03
18	ERF - Subtask 3 of 3	Jun 6	Jun 9	4h	1	0%	4	
19	Integration Testing of Milestone 3 Solutions	Jun 6	Jun 12	4d	1	0%	32	Tue 27 May 2008, 23:33
20	Demonstration	Jun 13	Jun 13	1h	1	0%	1	

Resources

Name	Short name	Type	Group	Email	Cost	Notes
Alex Egan	Alex	Material		eegs@gmail.com	1	Tue 27 May 2008, 23:19
Filimoni Lutunaika	Fil	Material		filimoni.lutunaika@gmail.com	1	Tue 27 May 2008, 23:21
George Sainsbury	George	Material		gsainbury@gmail.com	1	Tue 27 May 2008, 23:20
Xiaodong Cui	Cui	Material		xiaodong.cui@student.adelaide.edu.au	1	Tue 27 May 2008, 23:20

Figure 1: Gantt chart of tasks for milestone 3

2.3 Resource Allocation

As described in Section 1.1, resources (developers) will be allocated to each task as follow:

- **Ticket 131:** Xiaodong Cui
- **Ticket 148:** Filimoni Lutunaika
- **Ticket 174:** George Sainsbury
- **Earth Remove Feature:** Alex Egan

If a task is completed early, or it is noted that less people are required to complete a task on schedule, they will be reallocated to other tasks.

2.4 Source Control

2.4.1 Task Completion Criteria

To ensure the successful integration of each allocation tasks into the team repository, the member responsible will have to make sure that at least one of the other team members can successfully duplicate the end results or outcome of the task.

Upon satisfying the above requirement, the member responsible can then make a pull request to the team's gitHub leader to upload the solution onto the team's git repository for the actual integration testing of the team's collective solutions.

2.4.2 Git Repository Process

Each team member is expected to follow the git repository procedures outlined in the *Repository Process Document for Earth*.

2.4.3 Testing Process

Each team member is expected to follow the testing process procedures outlined in the *Testing Process Document for Earth*.

2.5 Administration

In addition to the assigned tasks for this Milestone 1, the roles of Git Leader and Documentation Person will be rotated amongst the Team 1 members at every milestone. This will help to ensure that each member gets a chance to take on extra responsibilities with the view of broadening their individual skills as a software developer.

2.5.1 Git Leader

For Milestone 3, Alex will be in charge of managing the repository for Team 1. This includes ensuring that the Milestone 3 solutions undergo integration testing before being committed onto the Team 1 repository.

2.5.2 Documentation Person

For Milestone 3, Fil will oversee the documentation requirements for Team 1, which mainly includes setting meeting agendas and organising progress update meetings.

3 References

Sommerville, I. *Software Engineering*, 8th Edition, Addison-Wesley, 2007

Wikipedia, *Agile software development* Retrieved from *http://en.wikipedia.org/wiki/Agile_software_development* on 27/05/2008.

Earth Project, *Ticket 138* Retrieved from *http://open.rsp.com.au/projects/earth/ticket/138* on 27/05/2008.

Earth Project, *Ticket 148* Retrieved from *http://open.rsp.com.au/projects/earth/ticket/148* on 27/05/2008.

Earth Project, *Ticket 174* Retrieved from *http://open.rsp.com.au/projects/earth/ticket/174* on 27/05/2008.

Egan, A and Bamogaddam, M.,*Testing Process Document for Earth* Egan, A and Bamogaddam, M., First Edition, 2008.

Egan, A and Bamogaddam, M.,*Repository Process Document for Earth* First Edition, 2008.

END