Software Project Management Plan
for
The Walking Game

Star Team
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Revision History

Revision #	Date	Description	Author
1.0	10/29/2014	Initial revision	Samuel I. Gunadi
1.1	10/31/2014	Improved typesetting and added project website URL	Samuel I. Gunadi

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1 Introduction

The Software Project Management Plan for The Walking Game project defines the project management goals of the project and includes a description of the deliverables and deadlines. Star team consists of: Samuel I. Gunadi, Roberto J. Kondurura, and Ryan Elegant. Star team has a goal to fulfill the requirements of the software engineering course at Universitas Pelita Harapan.

1.1 Project Overview

This section of the Software Project Management Plan (SPMP) gives an overview of the purpose, scope, and objectives of the project. It also contains sections regarding the assumptions and constraints, the project deliverables, the summary of the schedule, and the plan for change in the SPMP.

1.1.1 Purpose, scope and objective

This project aims to educate and entertain users—educate, by studying the source code, and entertain, by playing and interacting through the console. This project will mostly benefits the team as part of their Computer Graphics and Software Engineering course assignments.

The project will have a Wavefront OBJ file parser; people 3D models, textures, and walking animations; textures with alpha blending; a textured floor; collision detection; simple command interpreter and scripting; nameplates; and an MMORPG style third-person camera. The project website can be found at `https://github.com/samuelgunadi/thewalkinggame`.

1.1.2 Assumptions and Constraints

There are several assumptions and constraints that are important for the project and its team members.

1.1.2.1 Assumptions

The assumptions are as follows:

- The team consists of 3 people and additional human resources will not be available.
- The team is experienced enough to complete the project.
- The team will work together to complete the project

1.1.2.2 Constraints

The constraints are as follows:

- The team members' time on the project will be limited to approximately 5 hours per week.
- The budget is US$ 0 and additional financial resources are not available for the project.

1.1.3 Project Deliverables

The Star team will deliver a working system that satisfies the requirements.

1.1.3.1 Software Deliverables

The Star team will deliver the software program and its third-party libraries.

1.1.3.2 Documents Deliverables

Documentation will be delivered by the Star team during the course of the project. Some of the documents are intended for team use and are required by the Software Engineering course, while other documents are part of the deliverable to the client.

1.1.3.2.1 Team Documents

The following documents are for the team use and are required by the Software Engineering course:

- Software Project Management Plan (SPMP)
- Software Requirement Specification (SRS)

1.1.3.2.2 Client Documents

The following documents will be delivered to the client: • Installation documentation

- End-user documentation

1.1.4 Schedule

The schedule of the project phases, milestones and corresponding documents is given in Table 1.

Project milestone	**Project artifact**	**Due date**
Project start		08/10/2014
Producing needed documents	SPMP and SRS	09/24/2014
Phase 1 completion	Phase 1 delivery	10/14/2014
Phase 2 completion and final presentation	Phase 2 delivery and user documentation	11/19/2014

Table 1: Star team's Milestones and due date

1.2 Evolution of the SPMP

The SPMP for The Walking Game project will be under version control Git, so any changes will be made to the plan itself. The updated document will be made available to all project members and interested stakeholders on the project's web site `https://github.com/samuelgunadi/thewalkinggame`.

2 References

[1] "IEEE Standard for Software Project Management Plans," *IEEE Std 1058-1998*, pp. 1–28, Dec 1998.

[2] "Guidance on project management," *ISO 21500:2012*.

[3] P. Tripathy and K. Naik, *Software Evolution and Maintenance: A Practitioner's Approach*. Hoboken, New Jersey: John Wiley & Sons, 2014.

[4] K. Naik and P. Tripathy, *Software Testing and Quality Assurance: Theory and Practice*. Hoboken, New Jersey: John Wiley & Sons, 2008.

[5] I. Sommerville, *Software Engineering*, 9th ed. Boston, Massachusetts: Addison-Wesley, 2010.

[6] R. Pressman and B. Maxim, *Software Engineering: A Practitioner's Approach*, 8th ed. New York, New York: McGraw-Hill Education, 2014.

3 Definitions

SPMP — Software Project Management Plan

SRS — Software Requirements Specification

VM — Virtual Machine

OpenGL — Open Graphics Library

PDF — Portable Document Format

IDE — Integrated Development Environment

4 Project Organization

This SPMP will identify the organizational entities external to the project and their interaction with the project team, as well as internal project structure and roles and responsibilities for the project.

4.1 External Structure

The clients for this project are David Hareva, Star team's computer graphics lecturer and Robertus Hudi, Star team's software engineering assistant lecturer. The Star team communicates with the client at each class meeting.

4.2 Internal Structure

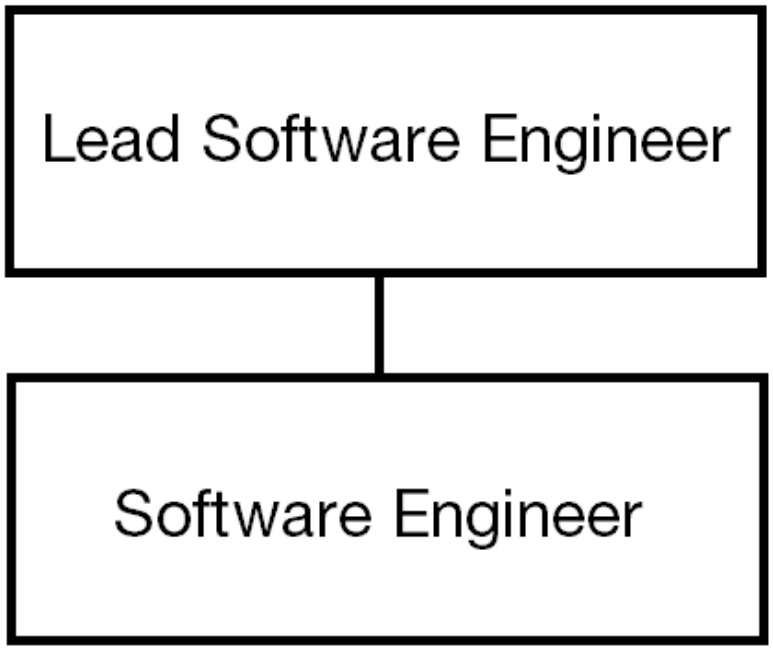

Figure 1: Internal team structure

The team structure is hierarchical. Figure 1 shows the internal team structure, consisting of 2 roles.

4.3 Roles and Responsibilities

Star team's roles and respective responsibilities are shown in Table 2.

Role	Responsibilities
Lead Software Engineer	• Motivate the team members to perform their tasks • Help the team in allocating the tasks and resolving issues • Create and maintain SPMP • Create, develop, and maintain SRS • Establish and maintain the team's development standards • Lead the team in implementing the product • Lead the team in developing the tests and running the tests
Software Engineer	• Implement the product • Develop and run tests • Produce user documentation

Table 2: Star team's roles and respective responsibilities

5 Managerial Process

5.1 Work Plan

The SPMP will specify the work activities, schedule and resources for The Walking Game project.

5.1.1 Work lists

Table 3 and Figure 2 outlines the major work activities and their dependencies for the duration of the project.

ID	WBS	Task Name	Start Date	Finish Date
1	1	Education and requirements phase	08/10/2014	08/24/2014
2	1.1	OpenGL and content creation tools education	08/10/2014	08/24/2014
3	1.2	Requirements phase	08/10/2014	09/24/2014
4	1.2.1	Requirements gathering	08/10/2014	08/24/2014
5	1.2.2	Requirements analysis	08/24/2014	09/10/2014
6	1.2.3	SRS preparation	09/10/2014	09/24/2014
8	2	SPMP document preparation	08/10/2014	08/24/2014
9	3	Phase 1	11/01/2014	10/14/2014
10	4	Phase 2	10/15/2014	11/18/2014
11	5	Final presentation	11/19/2014	11/19/2014

Table 3: Overall project plan

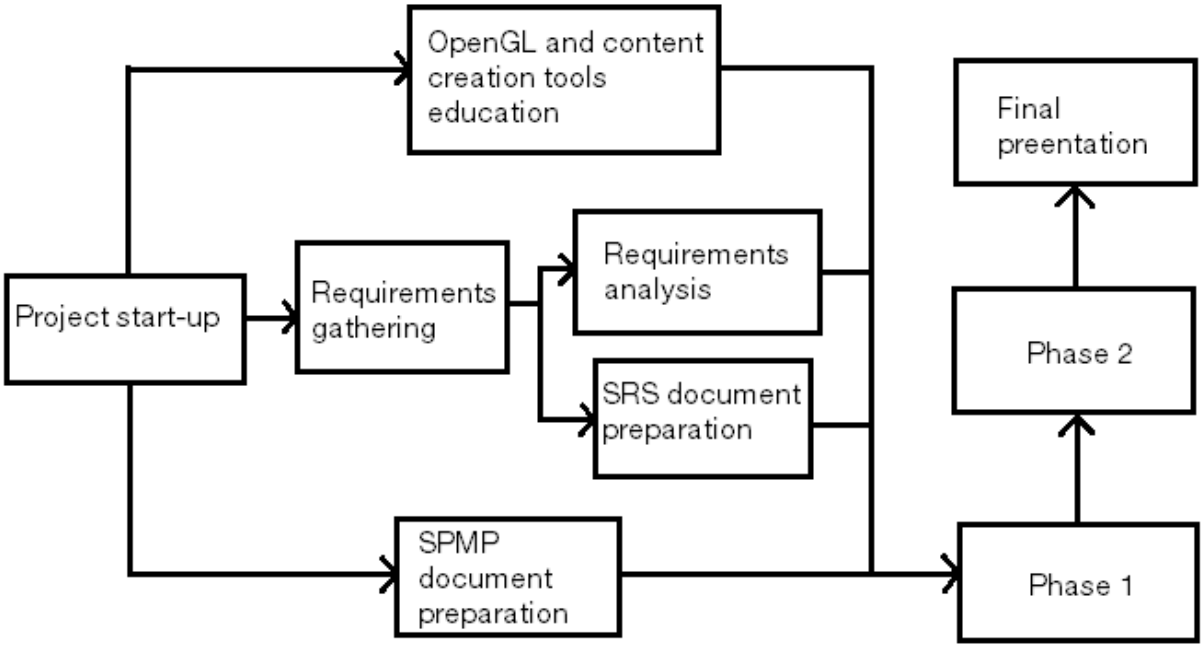

Figure 2: Project activity network diagram

6 Technical Process

The SPMP will specify the development process model, technical models, tools and techniques that will be used to develop the work products, project infrastructure and product acceptance plan.

6.1 Process Model

The Walking Game project will follow an incremental and an iterative development model for its deliverables. The development will be done in several phases and each phase will represent a complete development cycle, with certain functionality of the system delivered at the end of each phase. The phased approach to delivery provides flexibility in what the team will deliver, gives an opportunity to reassess the effort for each phase and allows both the team and the client to change any of the phase's content. The project phases are outlined in Table 4.

Phase	Start and finish date	Phase goals
Project start-up and learning	10/10/2014 to 10/31/2014	1. Task allocation 2. Learn OpenGL and related tools 3. Learn 3D content creation tools
Requirements	10/11/2014 to 10/21/2014	1. Become familiar with requirements 2. Create and review the required documents
Phase 1	11/01/2014 to 11/15/2014	1. Implement a Wavefront OBJ parser 2. Create 3D models 3. Create textures 4. Create animation
Phase 2	11/16/2014 to 11/30/2014	1. Implement collision handler 2. Implement console commands interpreter 3. Implement third-person camera 4. Implement character controls 5. Implement nameplates

Table 4: The Walking Game project phases and goals

6.2 Methods, Tools, and Techniques

The Star team uses object-oriented methodology and software patterns. Microsoft Visual Studio is used as primary IDE, with Microsoft Visual C++ Compiler the compiler. The programming

languages used are C++ and C. Autodesk Maya, Autodesk 3dsMax, Autodesk Mudbox, DAZ3D Studio, Pixologic ZBrush, and Adobe Photoshop are used as the content creation tools. Git is be used for revision control. Documentation is created using Latex which is then compiled into PDF documents.

6.3 Infrastructure Plan

The Star team has three Windows computers available for this project. The team also has access to Linux VM and a printer.