Mariotroid

Project Development Plan

Version <1.2>

Revision History

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| **Date** | **Version** | **Description** | **Author** |
| 06/01/2017 | 1.0 (DRAFT) | Conversion of Marv’s Draft to Report Document (Formatted by Greggie) | Team Mariotroid (GP) |
| 6/03/2017 | 1.1 (DRAFT) | Addition of team suggestions, project monitoring and control information, and grammatical corrections. | Team Mariotroid (MA) |
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Project Development Plan

# Introduction / Team Vision

Team Mariotroid (Group Code A) is composed of six (6) aspiring game developers. Together, the team will share their passion and develop a single-level 2D video game called Mariotroid. The Team Members are as follows:

* Agabi, Marvelous (Marv)
* Malone, William (Will)
* Miller, Matthew (Matt)
* Mitson, Nathan (Nate)
* Pascual, Greggie (Greggie)
* Young, Jesse (Jesse)

Mariotroid will feature animations, score tracking and power-ups. Time permitting, the following will be added: music, jump/alternate weapon features, animated sprites, and multi-levels.

## Purpose

The purpose of this *Project Development Plan* is to gather all information necessary to control the project. It describes the approach to the development of the game and is the top-level plan generated and used by the team to direct the development effort.

The following people will use the *Project Development Plan*:

* The **project leader** uses it to plan the project schedule and track progress against the schedule.
* **Project team members** use it to understand what they need to do, when they need to do it, and what other activities they are dependent upon.

## Scope

This *Project Development Plan* describes the overall plan to be used by the team. The details of the individual iterations will be described in the Iteration Plans. The plans as outlined in this document are based upon the product requirements as defined by the *Team Vision*.

## Overview

This *Project Development Plan* contains the following information:

Project Overview — provides a description of the system specifications and programing language to be utilized. The story of the video game is also summarized.

Project Organization — describes the organizational structure of the project team.

Management Process — defines the major phases and milestones for the project.

# Project Overview

## System Specifications

The following is the required system specification:

* PC with JDK/JRE 8u131 or above.
* 4 Core Processor with at least 1GB of RAM.
* Windows/Mac/Linux Compatible
* Development using Java programming language and jogl-all and gluegen-rt libraries

## Game Story / Scenario

In the not too distant future a mysterious calamity has befallen the Earth. An evil has spread through the land, killing crops, making children vanish from their homes in the dead of night, and allowing vicious rulers to rise into power. Join Mariotroid, as he embarks on a quest to right the wrongs of this world and seek revenge for all those who have been lost. Mariotroid must rise up and defeat this evil threat that has come to simply be known as “The Calamity.”

## Project Deliverables

Deliverables for each project phase are identified in the CMSC 495 Project Elaborations document. Deliverables are delivered weekly, as instructed by the professor. Deliverables beginning in Week 2 are as follows:

* Week 2 – Plans and Specifications
* Week 3 – User’s Guide and Test Plan
* Week 4 – Design
* Week 5 – Phase I (Software)
* Week 6 – Phase II (Software)
* Week 7 – Phase III (Software)
* Week 8 – Phase IV (Final Report)

## Evolution of the Project Development Plan

The *Project Development Plan* will be revised prior to the start of each week. The evolution of this Plan will be based upon the team’s decision to modify the plan. Major considerations will be (as noted in the CMSC 495 Project Elaborations document):

* who did what this week,
* the original milestones for this week,
* whether or not team members are on schedule,
* special problems that were encountered,
* a reevaluation of the all the decisions made so far - from the very beginning, and
* taking note of changes to any of the previous documents.

# Project Organization

## Roles and Responsibilities

* + Project Lead: Greggie
    - Issue Weekly Goals
    - Review weekly documents before submission and issue any revised documents.
    - Work closely with design, test, and coding leads, as well as documentation personnel to ensure project quality and timely deliverables.
    - Aid with coding as necessary.
  + Definition & Requirements: Marv
    - Document project plans, goals, and achievements.
    - Compose project plan, user guide, and assist with test plan creation.
    - Work closely with project lead to ensure all documentation meets the requirements and project goals are being met.
    - Aid with coding as necessary.
  + Testing: Nate
    - Create test plan for project.
    - Conduct weekly tests of available code while reporting and/or fixing any bugs that are encountered.
    - Work closely with design and coding leads to ensure game vision is being met.
    - Aid with coding as necessary.
  + Design: Matt
    - Design the overall game layout to include levels, maps, and tentative story.
    - Work closely with testing to ensure game vision is being met and game design lends itself to testing.
    - Provide frequent updates to project lead on changes in design or additions of new ideas.
    - Aid with coding as necessary.
  + Coding Leads: Jesse & Will
    - Responsible for the majority of the game coding.
    - Work closely with design and testing to ensure the vision is being realized in code.
    - Provide frequent updates to project lead and documentation to ensure all team members and documentation are kept updated on the status of the code.
    - Send coding tasks to project lead for assignment to other members when necessary.

# Management Process

## Project Schedule / Milestones

The following are the key milestones of our project which will be used to keep the team on schedule:

* + June 1st - Initial Design Complete (Matt)
  + June 4th - Project Plan Complete (Marv & Greggie)
  + June 5th - First Look Complete (Jesse & Will)
  + June 11th - Test Plan Complete (Nate & Greggie)
  + June 12th - Movement and Collisions Demo (Jesse & Will)
  + June 18th - Final Project Design Complete (Matt)
  + June 19th - Score and Power-Up Demo (Jesse & Will)
  + June 26th - Animation Demo (Jesse & Will)
  + July 3rd - Main Game Complete (All)
  + July 10th - Documentation/User Guide Completed (Marv & Greggie)

## Project Monitoring and Control

**Schedule Control**

The project leader and the team members will maintain a schedule showing the expected date of each milestone. Changes in the schedule will be discussed by the project leader with the team members and target completion dates will be altered as necessary.

**Quality Control**

All deliverables are required to go through the appropriate review and testing process, as described in the Test Plan. Testing will be led by tester, Nate. The review by the tester and the project lead is required to ensure that each deliverable is of acceptable quality, using guidelines described in the User’s Guide and this Project Development Plan. Testing will be conducted before the end of each milestone using both white-box testing and black-box testing. During the white-box testing, custom test methods will be used as required to ensure all class functionality is thoroughly tested.

**Project Close-Out**

**Project close-out will take place following the project plan and schedule. Staff reassignments will be handled by the project lead, as needed. Project materials will be maintained on GitHub for the duration of the project and for at least twelve (12) months after project completion. Post-mortem debriefings and reports will be developed by the documentation team under direction of the project lead or as needed.**

**Problem Resolution**

**If two (2) team members have a disagreement, they will need to take it to the project lead who will act as a neutral third party. At this point, the team lead will either present the issue to the group, who will take a vote on it. For minor issues, the team lead can make an on-the-fly decision to resolve the conflict. Team members will be able to vote on staff reassignments and request them as needed. This will act as a check -- as a way of keeping the team leader from being all powerful -- and for resolving issues with the team leader or other members. If a team member is not performing up-to-task, a vote can called to reassign said team member to a new task. Team members can also request a vote for reassignment, if they determine they can no longer perform their assigned role. Schedule adjustments will follow this same course of action. Regardless, the majority of the decisions will be decided by the team as a whole.**

**Process Improvement Plan**

**The process will be assessed at the end of every week, as well as at every milestone by the team. Weekly assessments will ensure the current process is effective, which will lead to a successful project and timely completion of every phase. At this time, any possible improvements will be evaluated and implemented as deemed necessary by the team.**

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