Requirements and Analysis Document for: Bravely Segfault

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1 Introduction

This document describes the development of the game Bravely Segfault.

1.1 Purpose of the Application

The application is an old-school style role playing game (RPG). We will build a basic framework for the functionality of such a game, and create the specific application in that framework. The game is aimed at students of the Computer Science program at GU, in the sense that the story and characters will be based off our experiences from attending said program.

1.2 General Characteristics of the Application

The application will be a computer system, standalone (non-networked), single-player application with a graphical user interface for Windows/Mac/Linux platforms.

The player will be able to control a character in a world by moving around in a movement system on a square-based grid. The player character will be able to interact with other non-playable characters and interactive objects.

The game will be story-based, meaning that it will be divided into multiple chapters. The player will be able to continue through the story by fulfilling certain criteria.

There will be an inventory system where the player can collect so-called items. These items are used to trigger specific interactions that moves the story forward. Specific items can also be equipped by the player to amplify their battle-power.

The game will have a battle system, where the player can fight against enemies in a turn-based manner. The player can make choices as battle actions to interact with and defeat enemies.

1.3 Scope of the Application

This application will mainly be developed to be used on desktop computers. The main focus is world interaction between the player character and other characters/objects. As such, the battle system will have low priority and will only be implemented if there is time.

1.4 Objectives and Success Criteria of the Project

The project will be considered to be successful when a player is able to play and complete a full chapter of the game story. This includes interaction between the player character and other world objects/characters, as well as item interaction to proceed through the story until the first chapter is completed.

1.5 Definitions, Acronyms, and Abbreviations (wordlist)

RPG - Role Playing Game

Inventory - A list of game items that a player has access to

World objects - Part of the world that you cannot walk on (e.g trees, walls)

NPC - Non-playable character

Battleground - An area where the character fights enemies
Consumable - Items that decrease in amount when used

Equipment - Items that can be attached to a player character

Key Item - Items that unlocks story progression or other interactions

Framerate - The rate at which the application updates

2 Requirements

2.1 Functional Requirements

The player can start a new game.

The player can move in the grid.

The player can interact/talk with NPCs.

The player can interact with world objects.

The player can progress the story by interacting with NPCs or world objects.

The player can shut down the game and resume it on a later occasion.

The player can fight and defeat enemies.

The player can manage their inventory.

2.2 Non-functional Requirements

2.2.1 Usability

The game should display a guide that instructs the user on button functionality.

There should be an English manual online if the user forgets the button layout.

2.2.2 Reliability

The game should not crash, and should be bug-free.

2.2.3 Performance

The game should run at 60 frames per second at all times on modern hardware. The game should be runnable at interactive framerate on older hardware.

2.2.4 Supportability

The game should not perform differently regardless to the running platform.

2.2.5 Testability

There should be a test suite for non-GUI functionality. These tests should be built from the ground up, starting with the smallest cases (so-called unit tests).

2.2.6 Implementation

As the game will be implemented in Java, the player must have a JRE installed to run it.

2.2.7 Packaging and Installation

The game requires a computer with Java installed.

The game does not require any installation. Instead it will be run as an executable file.

2.2.8 Ethical Concerns

This game will feature characters based on real-life people, as such we will need to seek permission from those people to feature them in the game.

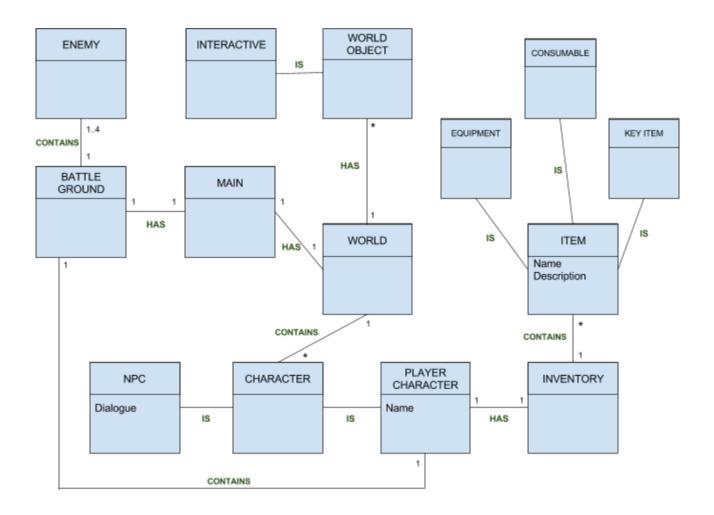
2.3 Application models

Use case model - list of Use case names (text for all in appendix) Use cases priorities

2.4 References

APPENDIX

Domain model



Use cases

1. Move

Summary: This is how the player moves their character in the game world

Priority: High Extends: -Includes: -

Participants: The player

Normal flow (no world object in movement direction)

Actor	System
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1	The player inputs movement direction button	
2		Moves the player character 1 step in the chosen direction
3		Disables movement for a small amount of time

Alternative flow (world object obstructs movement)

	Actor	System
2.1 World object obstructs movement		Disables movement for a small amount of time

2. New game

Summary: This is how the player starts a new game

Priority: High

Extends: Main Menu

Includes: -

Normal flow

	Actor	System
1	The player selects the new game alternative from the main menu	
2	The player confirms their choice with the appropriate button	
3		The system starts a new game, loading the game world from the appropriate file and putting the character in the starting position

3. Start interaction

Summary: This is how the player starts an interaction with an NPC

Priority: High Extends: Move Includes: Dialogue Participants: The player

Normal flow (NPC in front of character)

	Actor	System
1	The player moves their character to stand in front of an NPC See Move	
2	The player presses the interact button	
3		The system starts a Dialogue with the NPC in front of the character See Dialogue

4. Dialogue

Summary: This is how the player interact with NPC's dialogue system

Priority: Medium

Extends: -

Includes: Inventory
Participants: The player

Normal flow (interact with a NPC)

Step	Actor	System
1		A dialogue window starts
2		Gives a list of answers to select
3	Selects an answer with arrows and confirm	
4		Continues the dialogue

Alternative flow

Step	Actor	System
4.1 End of dialogue		Closes the dialogue
4.2 Effect on the game world		Change some of the world objects in some way
4.3.1 Receiving an item		Displays the item being received
4.3.2		The item is added to your inventory
4.3.3		Continues the dialogue (step 5)
4.4.1 Give an item		Dialogue present the option to give a certain item
4.4.2	Selects to give an item	
		Remove the item from player inventory and 4.2 Effect the game