**Battle to the Band**

**An Adventure of Rock**

Project Plan

Version 0.1

Team Echo

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# 

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# Introduction

## Purpose and Scope

The purpose of this document is to define and describe the process by which the project is completed. It includes some technical details but really has more high level requirements leaving the implementation to thee team. It also outlines the deliverables and breaks down parts of the game into manageable chunks in the attached spreadsheet.

## Product and Environment

The Product is Battle to the Band, a game where the player controls a character who walks through three different levels, fighting all sorts of enemies to achieve the final goal of reaching the band to play the Gig.

The Game will be played on a windows computer by running an executable file.

## Definitions, Acronyms and Abbreviations

So Far we have no Acronyms or Abbreviations, and don’t really use any terms which need defining here.

## References

We reference other similar platform games,, like Mario and MegaMan, both of which can be seen on [Nintendo’s Website](http://www.nintendo.com/)

## Overview

We have laid out the overview of the plan of the project in the attached spreadsheet, but the overall strategy will be to complete the level-agnostic tasks first - the control and attacks of a character, platform mechanics, etc. Then we will move to defining enemies and specific level details, completing each level in its entirety before moving to the next. At the end of each level we will also be implementing the boss fights. This approach allows us to parallelize our art/asset creation against the game and level mechanics.

# Current System

## Old System

The old systems for this game have been basically every machine out there. There have been side-scrolling games on just about every digital interface. Some examples might include: Xbox (all consoles), Playstation(all consoles including different PSP’s), Nintendo (all consoles), PC’s, Mac’s, Cell phones and even some calculators.

## Other Similar/Corresponding Systems

All the corresponding systems have been listed above in 2.1. However, our game will be for the PC.

# Advantages and Disadvantages

## Advantages

One major advantage of this game is the familiarity of the music and the characters, it will draw upon/parody names in music that will be obvious to the player, as well as songs that the player has heard time and time again. Another advantage is that the action platformer genre of the game is a timeless genre that almost every gamer is familiar with.

## Disadvantages

The biggest disadvantage of the game is that we need to obtain licensing in order to use famous music in the game. If this can’t be accomplished then a huge draw to our game will be gone, and we will have to compose our own soundtrack which will take extra time.

# Project Organization

## People (project group)

Espen Roth

Troy Woolbert

Chase West

All of us will be getting into each part - we won’t have one person solely dedicated to coding or making art or sounds.

## Related Organizations

The company is Team Echo

### Client

The Client is our Professor, Mark Baldwin

## Changing Group Size

We are all still committed to the completion of this project

# Project Goals and Ending/Termination

Throughout the course of the project there will be many goals associated with the group, client, project, and timing of everything. They are as follows:

## Goals of Project Group

Goals of the project group are to meet all deadlines and provide deliverables in a high quality and timely manner. The group also has goals of developing its first game using GameMaker as well as learning how to design and create a side-scroller game.

## Goals of Client

Goals for the client include being able to gain the software from the group and be able to post the software on an online site for others to play. Another goal would include ensuring the group understands how to design a game from the ground up in a high quality manner.

## Goals of the Project

The goal of the project is to provide a fun and entertaining game to play on the PC. The project also provides the goal of teaching the group how to design games in a near real-world development environment.

## Termination Criteria

The project may be terminated in the instance that the group drops out of the class, fails to deliver deliverables on time or if the client backs out of overlooking the project.

## Ending Criteria

The end of the project comes when the class ends and the final deliverable has been sent. There will always be work to do and features to add all the way up until the final deliverable.

# Project Phases and Timing

## Methods and Tools

The game will be mostly constructed using GameMaker: Studio. Audio editing will be done through Audacity and Logic.

## Phases

* + 1. The first phase of the game will be in creating the backbones of the game. This will involve creating the parent/child object structure for all of the moving characters in the game. This phase will also include making the main character and implementing movement controls and basic attacks in a small test room. Then the basic platform objects and enemy objects will be designed and added to the test room. Extensive testing will be conducted at the end of every level.
    2. The second phase of the project will be in designing the first level. This will involve designing enemies and platforms specific to the level. It will also include a large amount of background design.The boss at the end of the level will also be designed and placed. Significant testing will be conducted when the design is finished as this level will help immensely with the formatting of the second and third levels. Phase 2 is the one due on March 29, 2016
    3. The third phase will be in designing the second and third levels of the game, This process will be very similar to phase 2, as by then we will have the basic template of the levels down, the only differences will be in difficulty and art/audio design.
    4. Phase four is going to be the most testing heavy phase, as the game will be in the final stage of production. In this phase any extra features that we feel like the game would benefit from will be added and tested.

## Work and Task Estimates

The four phases of our project will have no work overlap as they need to be completed sequentially. The timetable for each phase is around 2-3 weeks. Assuming each member of the group works around 3-5 hours per week.

## Deliverables

* + 1. The deliverable for the end of phase 1 will be a pre-alpha. This will be the backbone of the game showing just a single small room with 1 platform, 1 enemy, and the play character with the ability to choose between the three weapons.
    2. The deliverable at the end of phase 2 will be the alpha. This will be the whole first level.
    3. At the end of the third phase the beta will be delivered, this will be all three levels, with all basic features implemented.
    4. The final game will be submitted at the end of phase 4, this will be similar to the beta release, but significantly optimised and tested, with extra features added that could not be completed by the delivery of the beta.

# Monitoring and Guidance

## Inside Group

Espen is the person to ask about any coding or architecture questions, since he has had the most coding experience in school and industry. Chase will be the go to about any questions related to rock and roll. Troy will be the knowledge point on GameMaker studio.

## Outside Group

### Client

We will ask the Client for help with requirements and maybe about advanced topics in game creation about how to handle certain situations, but mostly we will try not to bother him with such questions and learn ourselves.

### Course

The other option for us to get past a roadblock is to ask questions on Piazza for anyone else in the course to answer questions we have about implementation

## Others

Stack Overflow and GameMaker’s website

# Standards, Directives, Guidelines

The group must adhere to the following rules and guidelines throughout the course of developing the project.

## Standards and Directives

The group will adhere to the coding standards provided with the course documents. The group will also not plagiarise or copy code from other groups or outside sources. Code will only be used from outside sources if approved, small and cited. The group will not copy large portions of code to significantly develop a lot of the project.

## Confidentiality

There will be no confidentiality associated with the project. Since the game will be made on GameMaker, for others to play, it is understandable if they need the code and software to play the game. If an issue of plagiarism arises, the situation will be handled with those who have taken the code and claimed it as their own.

## IPR and Copyrights

The final project has no intentions of being under Copyrights at this time. IPR will only issues if outside parties steal the code and use it as their own, claim it, and make money from it.

# Risk Management

One of the major things that needs to be considered is copyright infringement. This risk will be mitigated by extensively researching licensing options for the music that may be put in the game. If an agreement with the holder of the copyright cannot be made, then the music will not be used.

# Learning and Studying Plan

## (To) Project Group

### Theoretical Knowledge

All of this should have been gained from other classes

### Practical Knowledge

We are also completing more tutorials in GameMaker Studio so we can understand what is and isn’t possible with the engine.

## (To) Client

We have review sessions like the review of this document to determine if our visions and goals are tracking together. Also we learn from the client in every class period.

# Installation Plan

Export as executable

# Starting (Initialization, Deployment) Plan

The deployment plan for this project will follow a simple, Plan-> Design-> Test-> Revise-> Implement-> Test procedure for adding new features or mechanics to the game.First the feature will be planned out, then the base design will be made, it will be tested, then revised if necessary, then implemented into the game as a whole, then tested again to make sure nothing was wrong with the implementation and revised again if need be.

# Costs (Budget)

We have budgeted $20 for the rights to music we want to include in the game. Everything else will be built in house. Food/beer for meetings is bought in an ad-hoc manner, not contributing to the budget.

# Rejected Alternatives and New Ideas

Throughout the course of brainstorming for the project, there have been ideas that were considered and will not be put into action.

## Rejected Alternatives

Some ideas include a traveling hippy game and a word finder game. The traveling hippy game would have a hippy that tried to make it to the festival while avoiding certain enemies. The word finder included a character that would search for letters throughout the game. At the end of each round, the character had to try to put together as many words as possible with the found letters.

## Ideas for Further Development

Currently the group is planning on not including a save feature. If the group finds it has enough time, this feature will be implemented. The group has also had ideas about cut scenes to help the story. There were also ideas about making the game available for mobile.

## Efficiency of Project

## To satisfy the desires of the Clients

The game will be written and designed in a way that will hopefully be fun and enjoyable for the player. Everything will be done to make sure this game will be available and legal to be put on the internet as a free download.

## Utility of the software

The game will be in a format that will be usable for most home computers.

## Computer efficiency

This game should be fairly simple for a computer to run it, as it will not have resource intensive graphics or mechanics.

## Computability efficiency

This game should be fairly simple for a computer to run it, as it will not have resource intensive graphics or mechanics.

## Code efficiency

We will strive to make sure there are as few redundancies in our code as possible. We will also try our best to ensure that the algorithms and code used are as efficient as we can make them.

# References

1. Parviainen, Ville. Weng, Chienting. Sahlberg, Jon. Karila, Kyosti. Castellano, Salvador Jesus Romero. Khan, Umair Azfar. "Project Plan for Triangulation Games" January 18, 2006.

# General Completion Strategy Spreadsheet

<https://docs.google.com/spreadsheets/d/1QUqCQHd-GhzyiPLCZkurMo1xlr0cWWPCirMxc19V2gI/edit#gid=0>

|  |
| --- |
| Testing |
| Graphic/Audio design |
| Story |
| Enemies |
| Level Design |
| Game Structure/Menus |

|  |
| --- |
| Phases |
|  |
| On Time |
| Unfinished |
| Late |
| Early |

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Description** | DONE? | Delivery Phase |
| **Game Infrastructure** |  |  |  |
| Object Structure for Character | parent/child object structure for all moving characters | YES | Phase 6 |
| Implement Speech bubble for any character |  | NO | Phase 6 |
| Player Objects with movement controlls | Jump, Left, Right | YES | Phase 6 |
| Basic Platform Object | implement one platform which can be jumped up through | YES | Phase 6 |
| Player Character Attacks | Implement damage and range for 3 different characters | YES | Phase 6 |
| Player Character Attacks Sprites/Animation | 3 sprites for different instruments- different animations for each | YES | Phase 6 |
| Enemy abstract object | AI for movement, attack, attack range, jump height, speed | YES | Phase 6 |
| Teacher Enemy Object | Stats, attack function taking range, etc | YES | Phase 6 |
| Teacher Enemy Sprites | Sprites and Sounds for teacher | YES | Phase 6 |
| Choose Character menu and initiate test level | Good luck | YES | Phase 6 |
| Basic Test level with one platform and one enemy | That enemy should work with AI | YES | Phase 6 |
| Test character choice and test level with all characters |  | YES | Phase 6 |
| **Level 1** |  |  |  |
| Holy Person Object | Stats, attack function taking range, etc | YES | Phase 7 |
| Holy Person Sprite | also sounds | YES | Phase 7 |
| Boss - Schoolmaster Object | Stats, attack for now. | YES | Phase 7 |
| Boss - Schoolmaster Sprite | Bigger | YES | Phase 7 |
| Platform Objects - Desks, Tables, bookshelves(maybe) |  | NO | Phase 7 |
| Platform Sprites |  | YES | Phase 7 |
| Background Pictures |  | NO | Phase 7 |
| Platform Location |  | YES | Phase 7 |
| Cutscene Design (what text, when, who?) |  | NO | Phase 7 |
| Cutscene Implementation | release controlls, make people say stuff | NO | Phase 7 |
| Mentor location? |  | NO | Phase 7 |
| Boss location |  | YES | Phase 7 |
| Test Level 1 |  | YES | Phase 7 |
| **Level 2** |  |  |  |
| **Enemies** |  |  |  |
| Druggie Object | Stats, attack function taking range, etc | NO | Phase 8 |
| Druggie Sprite | also sounds | NO | Phase 8 |
| Gangster Object | Stats, attack function taking range, etc | NO | Phase 8 |
| Gangster Sprites | also sounds | NO | Phase 8 |
| Boss - Ex GF Object | Stats, attack for now. | NO | Phase 8 |
| Boss - Ex GF Sprite | Bigger | YES | Phase 8 |
| **Level Design** |  |  |  |
| Platform Objects - Dumpsters, Broken Cars, Buildings(maybe) |  | NO | Phase 8 |
| Platform Sprites |  | NO | Phase 8 |
| Background Pictures |  | YES | Phase 8 |
| Platform Location |  | YES | Phase 8 |
| Cutscene Design (what text, when, who?) |  | NO | Phase 8 |
| Cutscene Implementation |  | NO | Phase 8 |
| Mentor location? |  | NO | Phase 8 |
| Boss location |  | NO | Phase 8 |
| Test Level 2 |  |  | Phase 8 |
| **Level 3** |  |  |  |
| **Enemies** |  |  |  |
| Record Reps Object | Stats, attack function taking range, etc | NO | Phase 9 |
| Record Reps Sprite | also sounds | NO | Phase 9 |
| Groupie Object | Stats, attack function taking range, etc | NO | Phase 9 |
| Groupie Sprites | also sounds | NO | Phase 9 |
| Boss - Record Boss Object | Stats, attack for now. | NO | Phase 9 |
| Boss - Record Boss Sprite | Bigger | NO | Phase 9 |
| Platform Objects - Seating, Balconies, Bars (maybe) |  | NO | Phase 9 |
| Platform Sprites | Sound for walikng on glass? | NO | Phase 9 |
| Background Pictures | Dark with neon lights and stuff... maybe animated | NO | Phase 9 |
| Platform Location |  | NO | Phase 9 |
| Cutscene Design (what text, when, who?) |  | NO | Phase 9 |
| Cutscene Implementation | Credits + gig playage | NO | Phase 9 |
| Mentor location? |  | NO | Phase 9 |
| Boss location |  | NO | Phase 9 |
| Test Level 3 |  | NO | Phase 9 |