POWER OVERWHELMING

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presents

TIME UPRISING
TRANSCEND TIME & SPACE

DESIGN DOCUMENT
VERSION 0.7
JUNE 11, 2014

INDEX

VERSION HISTORY

Version 0.1 – April 30, 2014

- First version of the document. Template based on link noted in "References" section
- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Narrative & Game World
- Initiated Sections: Features List; User Interface
- Pending Sections: Music & Sound Effects

Version 0.2 – May 7, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Narrative & Game World
- Updated Sections: Game Overview (Game logline & Gameplay synopsis); Game Details (Game Genre); Features List (Troops, Rodelle Dynasty Ruler, Enemies); User Interface (Overview, Control Panel, Narrative Area, Title Menu)
- Initiated Sections: Features List; User Interface
- Pending Sections: Music & Sound Effects

Version 0.3 – May 14, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Narrative & Game World
- Updated Sections: Features List (All Sections); Narrative & Game World (In-Game Portrayal); User Interface (All Sections); Music & Sound Effects (New Section)
- Initiated Sections: Features List; User Interface; Music & Sound Effects

Version 0.4 – May 21, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Narrative & Game World; File Tree & Naming Conventions
- Updated Sections: Features List (All Sections); Narrative & Game World (In-Game Portrayal); User Interface (All Sections); File Tree & Naming Conventions (New Section)
- Initiated Sections: Features List; User Interface; Music & Sound Effects

Version 0.5 – May 28, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Features List; File Tree & Naming Conventions;

- Updated Sections: Narrative & Game World (All Sections); User Interface (All Sections); Music & Sound Effects (All Sections); Development Process (New Section); Features List (All Sections)
- Initiated Sections: User Interface; Music & Sound Effects; Development Process

Version 0.6 – June 9, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Features List; Narrative & Game World; User Interface; Music & Sound Effects; File Tree & Naming Conventions
- Updated Sections: Game Overview; Game Details; Narrative & Game World (All Sections); User Interface (All Sections); Music & Sound Effects (All Sections); Development Process (All Sections); Features List (All Sections)
- Initiated Sections: Development Process

[FINAL] Version 0.7 – June 11, 2014

- Completed Sections: Game Overview; Game Details; Audience, Platform & Marketing; Features List; Narrative & Game World; User Interface; Music & Sound Effecs; File Tree & Naming Conventions; Development Process; Team Logo
- Updated Sections: All sections have undergone at least ssome minor revisions

GAME OVERVIEW

Game logline

Time Uprising is a narrative-based real-time strategy (RTS) game that is unique with its interdisciplinary mechanics and engaging storyline that transcends time and space.

Gameplay synopsis

Time Uprising is most unique in that it takes the simplest yet most distinctive mechanic of three popular game genres—tower defense (TD), real-time strategy (RTS), and role-playing games (RPG)—to create an unprecedented yet familiar gameplay experience. The second aspect of the game that sets it apart from others is its use of a strong, underlying narrative to establish and support the game logic for how and why each mechanic has been incorporated into the game.

Taken from RTS games is the experience of strategizing by performing squad deployment to defeat the enemy. Taken from TD games is the simple gameplay scenario and conditions: to win the game, invading enemies must be defeated using player-controlled towers; to lose the game, the "home base" (the Rodelle Ruler, in this case) must be overwhelmed by the enemies. Then taken from RPGs is the upgrade system: the players' troops level up from experience points earned by defeating enemies during the gameplay of each level, but the towers level up from upgrades purchased through a non-player character (NPC) merchant that is accessible throughout the game.

Then, with its narrative, *Time Uprising* adds a new degree of urgency to the experience by presenting a situation where the enemies have already invaded the king's court, and the king himself must be protected (compared to warding off enemies from castle exteriors). To further develop this critical tug-of-war scenario, each of the player's towers, which has its own unique function, can also be used against the player if it is captured by the enemy. Even so, all of this is set in a welcoming 2.5D cartoon game world, where an underlying plot of mystery and revenge is explicitly presented through short cut scenes (that can be skipped if the player so chooses).

GAME DETAILS

Description

During the game, the player must carefully monitor the towers' durability, ability cool-downs and the protagonist's health. The player must also tactically deploy troops using towers, then sensibly upgrade both the troops and towers through in-level and inter-level boosts (respectively). Only by controlling all game mechanics strategically will the player be able to defeat all enemies and advance smoothly through the game.

Game Genre

Although its gameplay experience is similar to that of an RTS game in that both require strategic deployment of troops, there are so many game mechanics that were taken from other game genres that it has become a hybrid game. The only unifying factor that explains the logic for all game components (i.e. game progression, art assets, command-point towers, troop types, upgrade system, etc.) is the narrative. As such, the most suitable "genre" for *Time Uprising* is "narrative-based RTS."

Player Input

Single-player game

Visual Style

2.5D cartoon with vibrant colors and contrasting values.

Game World

The game world and storyline is centered on the Rodelle Dynasty. The player acts as the beloved King Rodelle I and travels through time and space to calm the people and reveal the reason for their sudden unrest.

Controllable Mechanics

Towers and troops

Main Focus

The winning and losing conditions for *Time Uprising* is simple: if all invading enemies are defeated, the player advances; if the protagonist's health reaches zero, the player will be unable to advance. The narrative's focus is to solve the mystery of the people's unrest.

Game & Level Duration

The game is broken down into five eras, each with two difficulty levels. At least one new game mechanic (i.e. tower or enemy type) is introduced for each era. Each level contains multiple waves of enemies. The duration of a level will likely increase as the player progresses through the game due to the increasing difficulty and number of waves, but the game and level duration strongly depends on how the player strategizes his or her gameplay; there is no set time limit.

Unique Features

The gameplay process requires more strategizing than other TD games.

While towers remain the key components that the player interacts with to defeat incoming enemies, these towers have pre-determined positions and function as command points for special abilities or the weapon-wielding troops that emerge from within. If a tower's durability reaches zero, it is considered captured and all enemies that approach the tower receives an appropriate power-up.

The upgrade system blends aspects of RPG with traditional TD game boosts. Tower upgrades can be purchased at the inter-level Galactic Tower Store using the gold awarded for defeating enemies and completing levels. Troop boosts can be earned by leveling up with the experience awarded by defeating enemies.

Game Purpose

The purpose of the game is to take the most engaging aspects of three popular game genres—TD games, RTS games and RPG—to create a game that will appeal to a wide audience of both casual and hardcore gamers.

AUDIENCE, PLATFORM, AND MARKETING

Target Audience

The primary target for this game is strategy game enthusiasts, which are approximately 77% male, aged 20-35 (Flurry Analytics).[1] The secondary market is RPG enthusiasts, which are roughly 67% male, aged 20-35 (Flurry Analytics).[1]

Game Platform

Time Uprising is developed for computers, but has game mechanics that can easily be adapted for mobile gaming. The top three best-selling computer game genres (of 12 top-level genres) are role-playing games at 28%, casual games at 26.7%, and strategy games at 24.9% (10, Entertainment Software Association).[2] Since *Time Uprising* utilizes core game components taken from tactical TD games and RPG games, computers would be a popular platform to start developing on.

Furthermore, only about 36% of gamers use smart phones for gaming according to a 2013 report (6, Entertainment Software Association). [2] Considering how this implies that mobile gaming is less accessible, along with the fact that technology for mobile app development is still undergoing rapid iterative development, choosing computers as the initial game platform would be the best choice.

Lastly, the interesting narrative, cartoon art, and graphic novel-like format for cut scenes will also help appeal to audiences of all ages and genders.

Competitors & Feature Comparison

Throughout my research, I have not yet found another game that is such a hybrid of castle-siege TD games and narrative RPG.

FEATURES LIST

Explicit Narrative
The explicit narrative will be presented in the form of short, graphic-novel-styled cut-scene slides (please refer to the NARRATIVE & GAME WORLD section).

Game Progression
The game progression is unique in that

Towers
The towers in the game will be color-coded to match the troops and abilities.

Tower Category	Tower Description	Tower Function	Intro Era	Available Upgrades
Spawn	Melee	Spawns melee troops	Prehistoric (Era 1)	• Tower durability • Spawn size • Spawn rate
	Ranged	Spawns ranged troops	Prehistoric (Era 1)	
	Special	Spawns special troops	Medieval (Era 2)	
Ability	Heal	Heals Rodelle or a player-controlled tower	Prehistoric (Era 1)	• Tower durability • Cool-down duration • Ability power
	Warp Bomb	Warp bomb eliminates all units within a certain area	Edo (Era 3)	
	Multiplier	Boosts the spawn rate of player-controlled tower for a short amount of time	Modern America (Era 4)	
Enemy	Captured Spawn	A captured spawn tower boosts enemy attacks when enemies approach and troops can no longer be universally controlled	Prehistoric (Era 1)	Enemy Towers cannot be upgraded or controlled by player
	Captured Ability	A captured ability tower cannot be used by player	Prehistoric (Era 1)	
	Armory	If lost to enemies, enemies will gain attack power	Edo (Era 3)	
	Galactic Tower Prison	Tower that constantly spawns random enemies	Future (Era 5)	

How to control troops with towers are explained in more detail below.
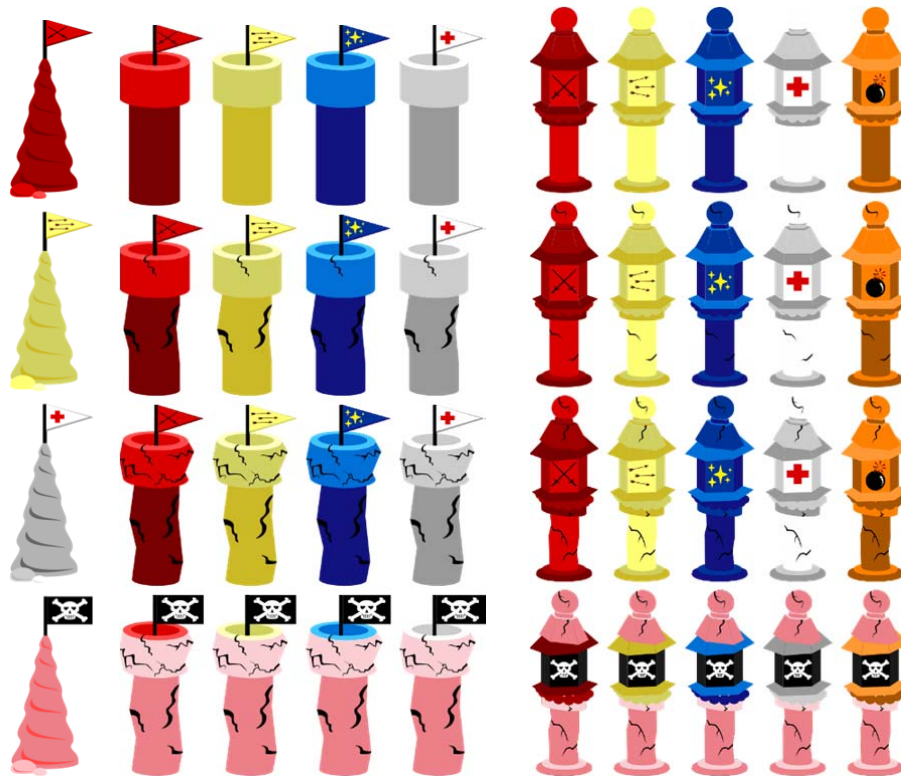
Capturing and Reclaiming Towers:

Towers have HP bars and accompanying crumbling states to show how damaged a tower is. After a tower's HP reaches zero, it is considered captured. A captured tower and turns pink—the color of all enemies—and any enemy that approach the tower acquire the special ability that is unique to the tower. Troops that are the same color as the captured tower become autonomous to kill enemies based on proximity, and can no longer be spawned. As the player reclaims a tower, the HP bar starts to fill up and it appears to be reconstructing. If the player has successfully reclaimed a tower, the tower's color return to normal, and ally troops start spawning again.

Tower Upgrades:

Tower upgrades (i.e. more HP, increased spawn, shorter cool down, bonus ability) can be purchased at the Galactic Tower Store that is available at the end of each era segment by using the gold earned from eliminating enemies and completing levels. Tower upgrades carry over across both levels and eras.

Troops
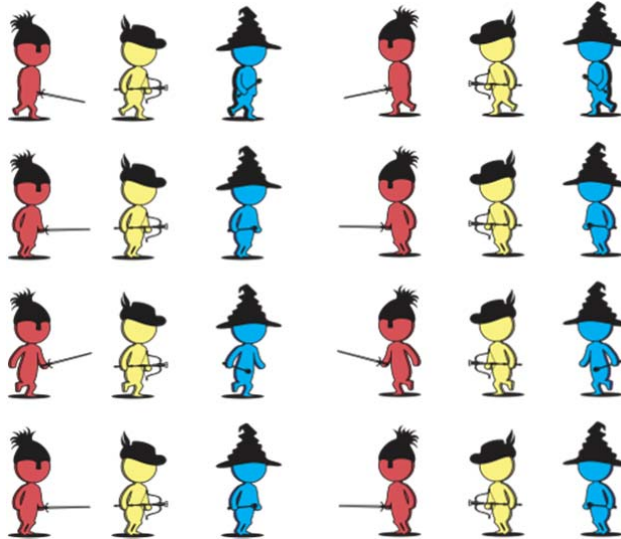
Troops are the main offensive component the player controls and color-coded to match the accompanying tent and tower.

Controlling Troops:

By default, spawned troops attack enemies based on proximity. However, if the player selects a tower by clicking on one, then clicks on another area of the map, all troops of the tower's color will immediately head towards the basic marker, attacking enemies along the way. If the player clicks on the basic marker, it becomes a command marker and the troops will ignore enemies along the way.

Troop Types:

There are three troop types: ranged troops (yellow) that quickly fire low-damage projectiles in a straight line at enemies within a distant range, melee troops (red) that slowly deal high-damage attacks to enemies directly in front of the troops, and magic troops (blue) that cast low-damage, corrosive effects (i.e. weakens, slows down, poisons) on enemies within a small circular radius.

Troop Upgrades:

Troop damage increases during gameplay as troops defeat enemies and gain experience points for their respective troop type. By using towers to focus some troop types on the offensive and others on the defensive, it becomes possible to strategically level up ally troops. Troop upgrades carry over across levels, but do not carry over across eras.

Rodelle Dynasty Ruler
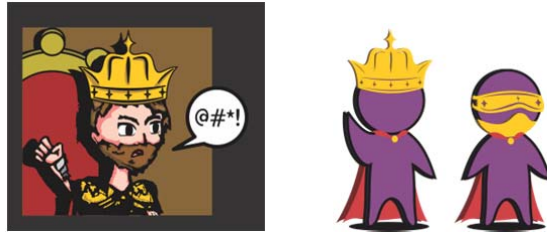
The Rodelle Dynasty Ruler (purple) is the protagonist figure that the player must always be kept alive throughout the game. If the health bar for the Rodelle Dynasty Ruler reaches zero, the player fails the game and must replay the level or a past one. Rodelle's health increases as the game progresses, but his stats cannot be altered and he has no offensive power. Depending on how well the player is doing, the Rodelle sprite in the narrative area on the UI will respond in a different way.
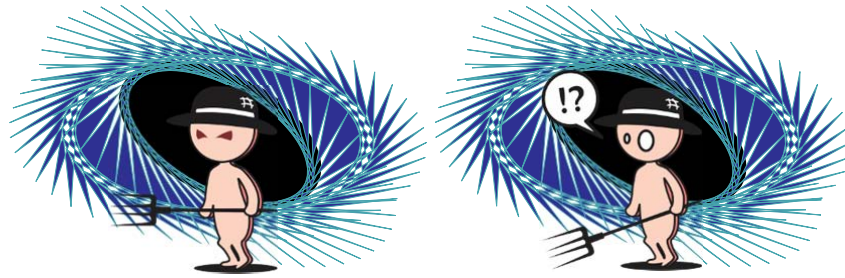
Enemies
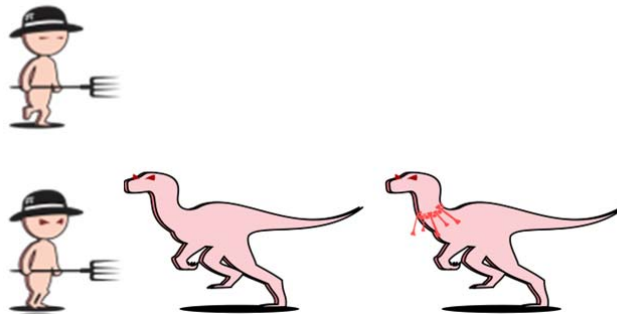
Enemy Types:
Enemies (pink) increase in difficulty as the player progresses through the eras. The newer enemies have greater attack power and greater quantities. Enemies can equip weapons from captured towers to increase their attack as well.

Enemy Spawn:
Enemy spawn frequency is based on the enemy type, but will always appear from the doorways before moving onto the gameplay area. As the game progresses, the enemy spawn speed and quantity will increase.
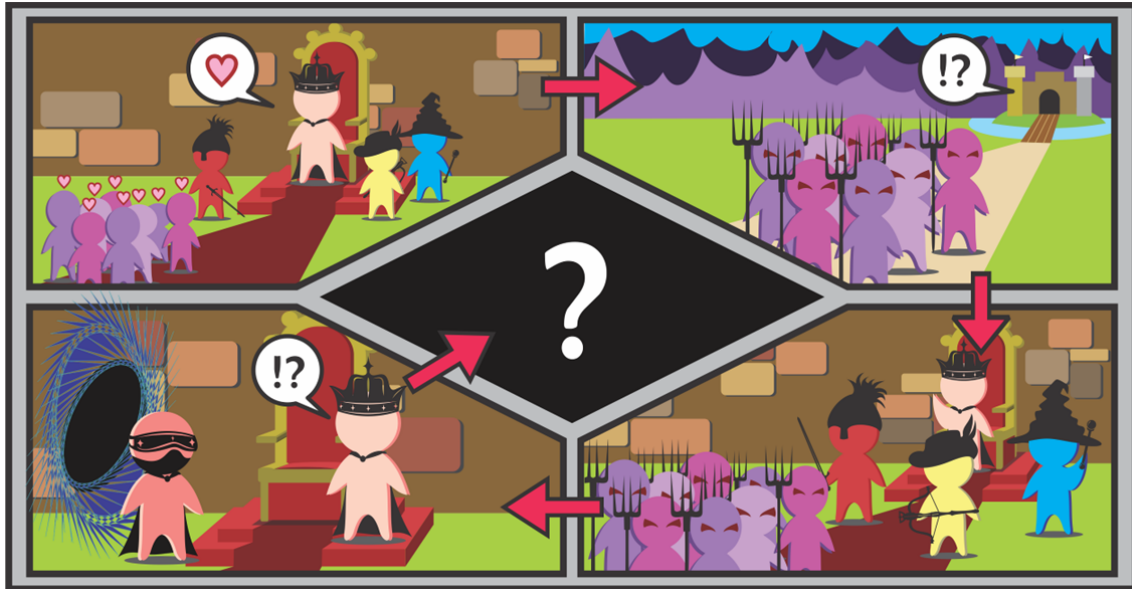
Enemy Capture:

When an enemy is defeated, a warp portal appears behind it and teleports the enemy to an initially unknown location. Later on, it is revealed that the enemies were warped to the Galactic Tower Prison by the Galactic Overlord Rodelle XVI.

NARRATIVE & GAME WORLD

In-Game Portrayal

One of the most appealing features of *Time Uprising* is the comical mystery story that ties together the entire experience. The game is kicked off with a prologue animation immediately after the title menu. After the first, medieval era is successfully completed, a 30-second cut-scene introduces the underlying conflict for the game. Then, before and after each era, as well as after a defeat, 20-second cut-scenes help to explain how the story develops. At the bottom of the UI is a narrative panel where a character sprite and dialogue box responds to what the player is doing in-game. All cut-scenes and dialogue can be skipped by choice.

Protagonists: Rodelle Dynasty Rulers

Although there is Caveman Rodelle of the Prehistoric era in the tutorial, the game officially starts with King Rodelle I of the Medieval Kingdom, followed by Emperor Rodelle of the Japanese Empire, then President Rodelle of Modern America, and ends with Galactic Overlord Rodelle XVI from Year 2555. The player acts as King Rodelle I throughout the game, travelling with Galactic Overlord Rodelle XVI and assisting the various Rodelle rulers in each era.

Antagonist: Unknown Rebellion Inciter

Throughout the majority of the game, the antagonist is known simply as the man who is inciting rebellion amongst the people despite Rodelle's just and prosperous rule over his

people. In the final era, it is revealed that the unknown rebellion inciter is actually Alex XVI, Galactic Overlord Rodelle's envious twin brother who wishes to rewrite history in each era so that he can be the universal trans-millennia ruler.

Prologue Animation

King Rodelle I is the beloved ruler of his Medieval Kingdom, where the subjects have been prosperous and content for decades. One day, though, the people suddenly become restless and demands that he relinquish the throne without reason. When King Rodelle I sent messengers to question the townsfolk, they responded with violence and march to the royal court in rebellion. Concerned about the people, but with his life at risk, King Rodelle I has no choice but to command his troops to capture all civilians that are revolting.

Medieval Era Completed Cut-Scene

After King Rodelle I had settled the medieval rebellion, he questions the townsfolk, but they are unable to identify the leader of the revolt. At this time, a warp portal suddenly appears and the Galactic Overlord Rodelle XVI jumps out before King Rodelle I. As the Galactic Overlord Rodelle XVI quickly explains the urgent situation, King Rodelle I is so overwhelmed by the warp portal that he isn't actually listening at all. Then, refusing to explain the underlying conflict in full detail all over again, the Galactic Overlord ends up just pleading King Rodelle I for strategic assistance in calming the people of later eras throughout history. King Rodelle I blankly agrees and the two Rodelles jump into the warp portal together. Upon entering the portal, King Rodelle I is presented with the Galactic Tower, which holds the Galactic Tower Store and the Galactic Tower Prison, where the captured mini-bosses of the Medieval Era are being retained.

Galactic Tower Exiting Cut-Scene

After exploring the Galactic Tower, King Rodelle I and the Galactic Overlord continue on to the next era, where they meet the next Rodelle Dynasty Ruler and are introduced to the background story of a new game mechanic.

Japanese & Modern America Era Completed Cut-Scene

After King Rodelle I and the Galactic Overlord have settled the conflict, they briefly celebrate with the Rodelle Dynasty Ruler of the era and then jump back into the warp portal and arrive at the Galactic Tower.

Future Era Final Stage Cut-Scene

Before the last level of the Future Era, the Galactic Overlord Rodelle XVI's twin brother, Alex XVI appears and introduces himself as the unknown rebellion inciter and declares a strategic battle between himself and King Rodelle I. King Rodelle I agrees and the two face off in the final stage.

Resolution Cut-Scene

After King Rodelle I defeats Alex XVI, Galactic Overlord Rodelle XVI proposes to execute Alex XVI. However, King Rodelle I is impressed by Alex XVI's strategic prowess and instead offers Alex XVI a title of nobility if he returns to the Medieval Era as his technologist and tactician. Recognizing King Rodelle I's abilities and benevolence, Alex XVI agrees to return to the Medieval Era with King Rodelle I and the two jump into the warp portal hand-in-hand.

USER INTERFACE & VISUAL DESIGN

Overview
Since this game has a comedic narrative, we are going with a comical, bright and simple art style to make it welcoming for audiences of all ages and genders.

The default font for our game is "Berlin Sans FB," created by David Berlow and Matthew Butterick. The "AR CHRISTY" font, originally known as "Gilligans Island" by Mark Riddle, was slightly revised for the game logo. For the Galactic Tower Store's welcome sign and purchase buttons, "Chalkboard" font by Marta van Eck. All fonts have editable embedding permissions. All other art assets and designs were created by Angela.
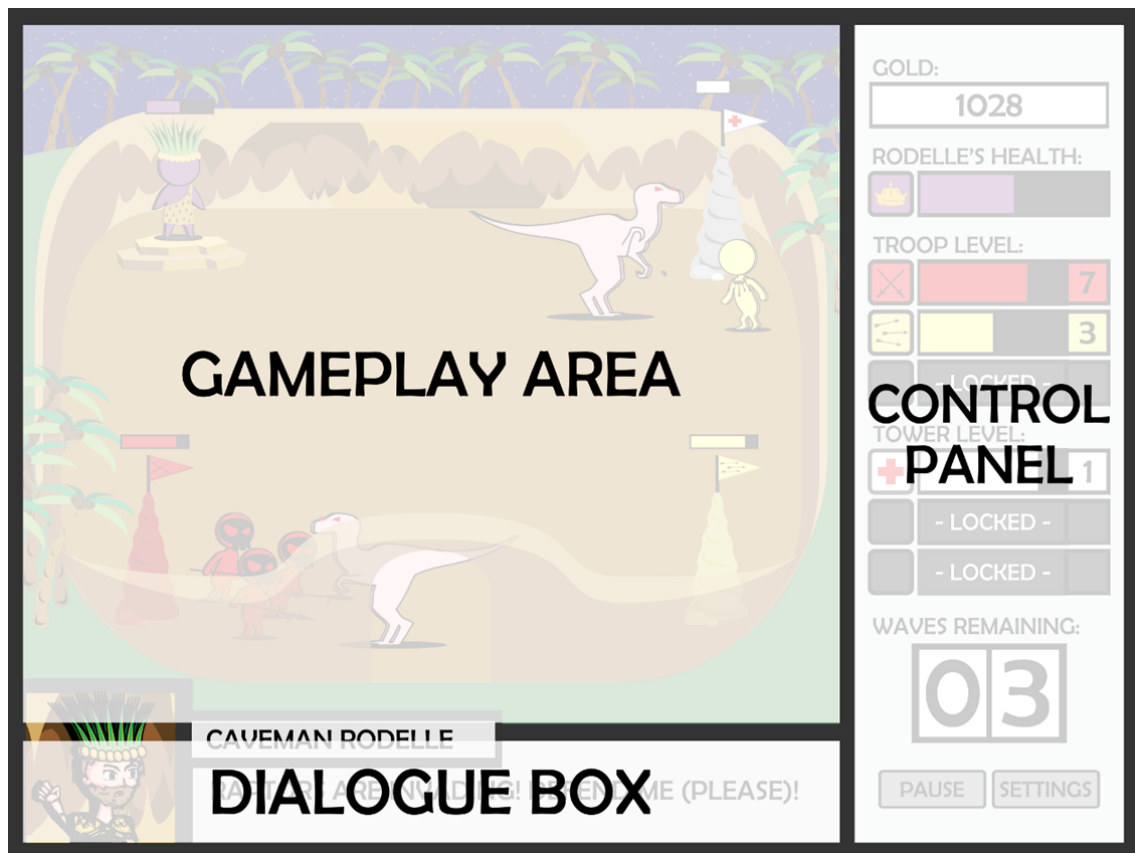
Title Menu

Skip Narrative Menu Mockup

About Menu Mockup
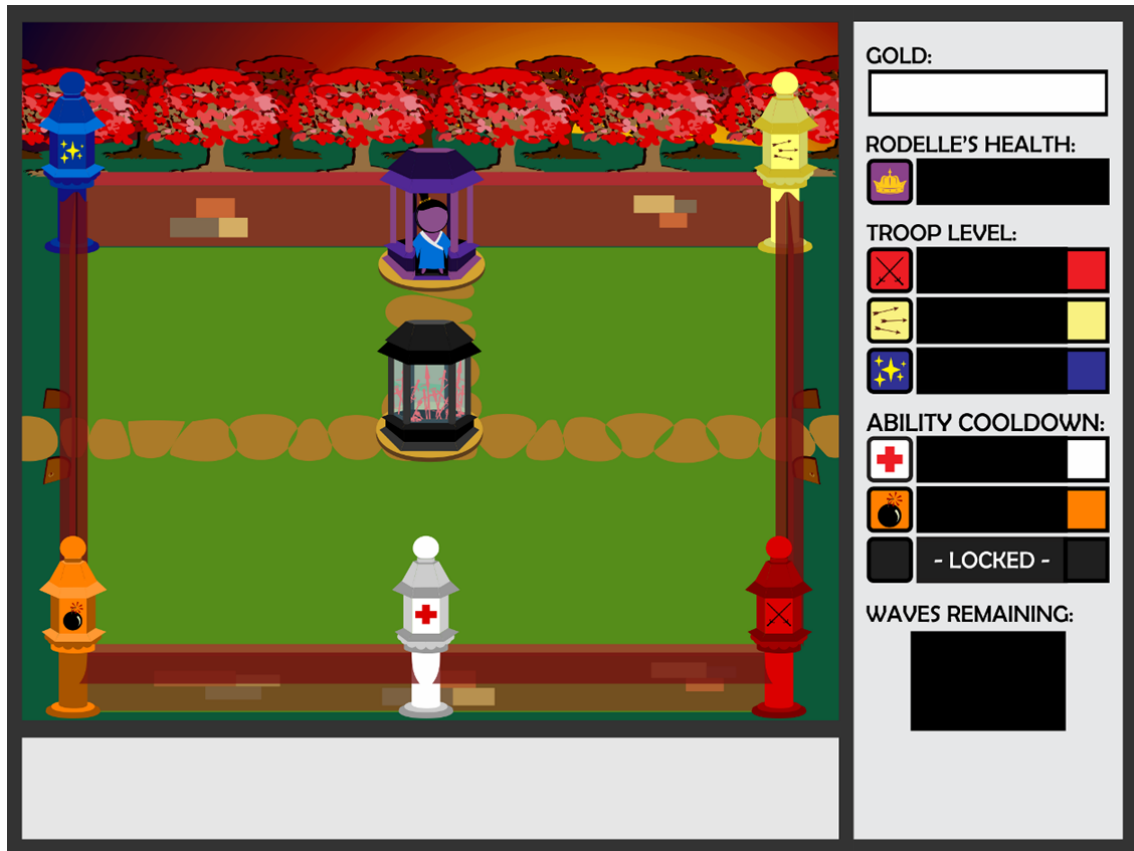
Pause Menu Mockup

Prehistoric Scene Mockup
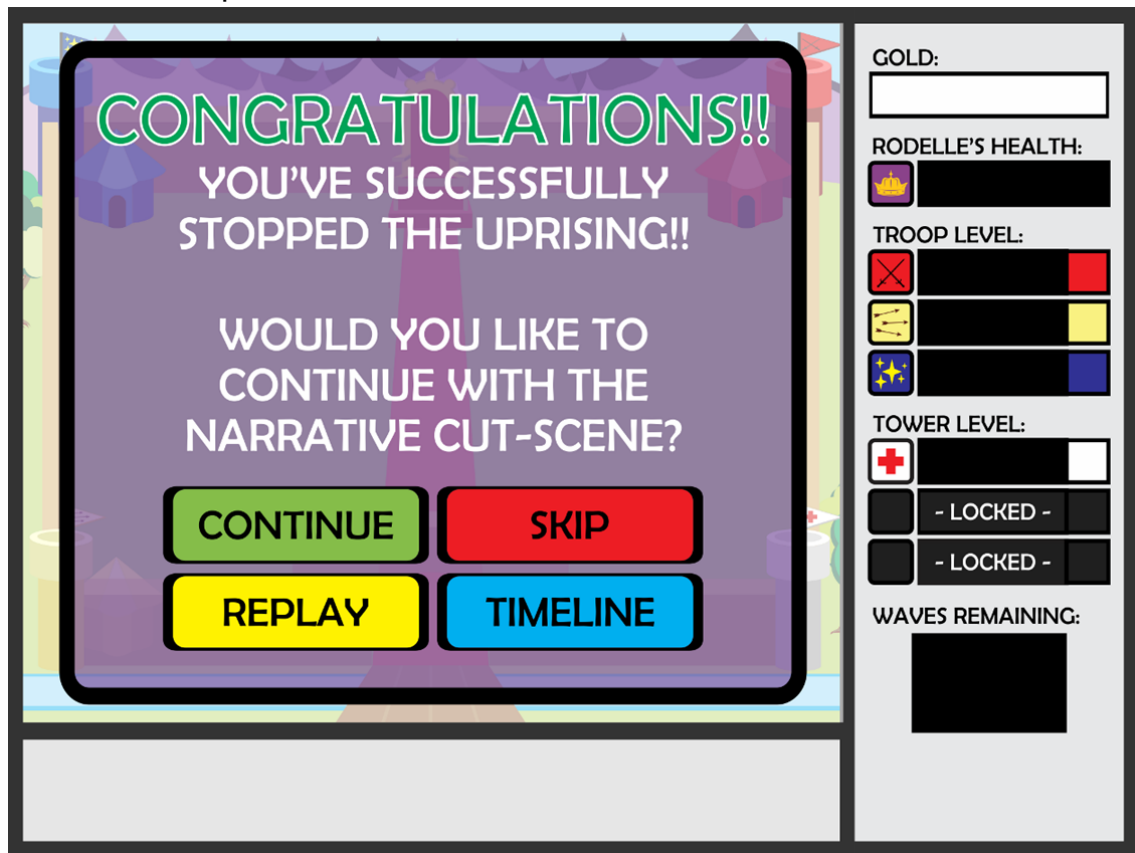
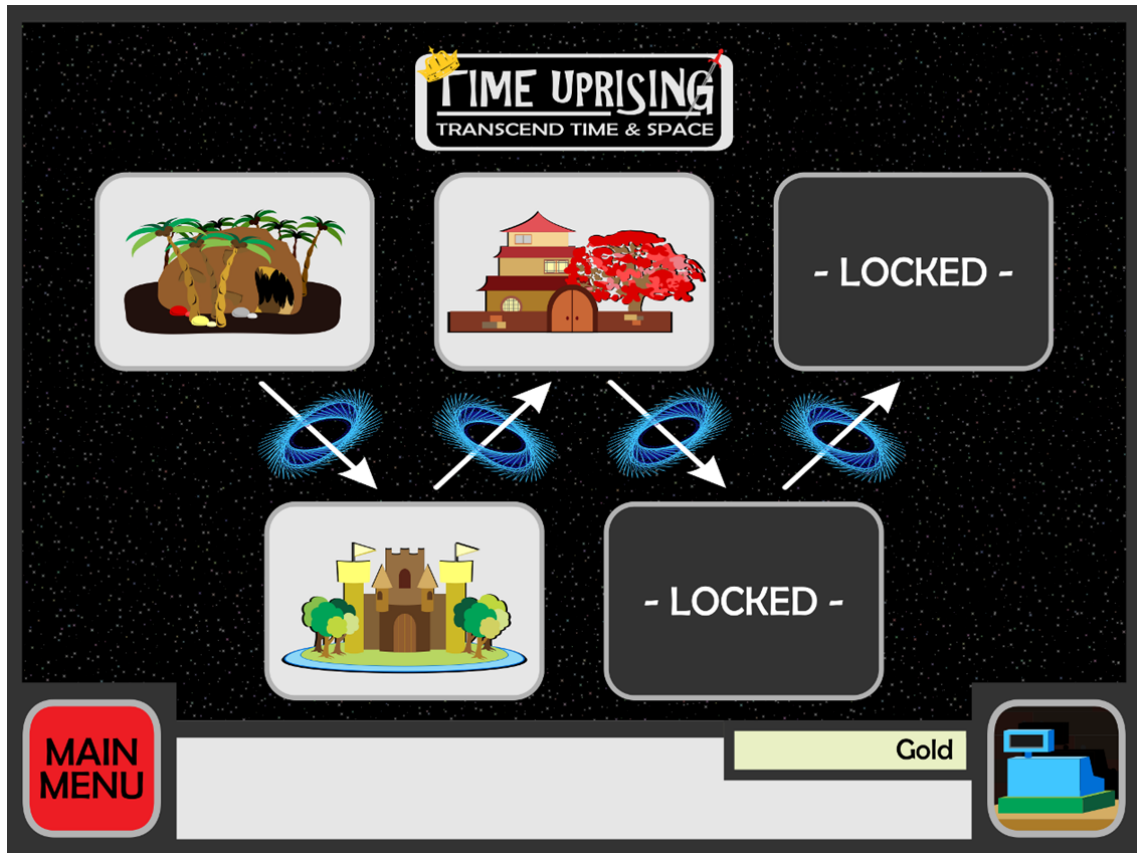Medieval Scene Mockup
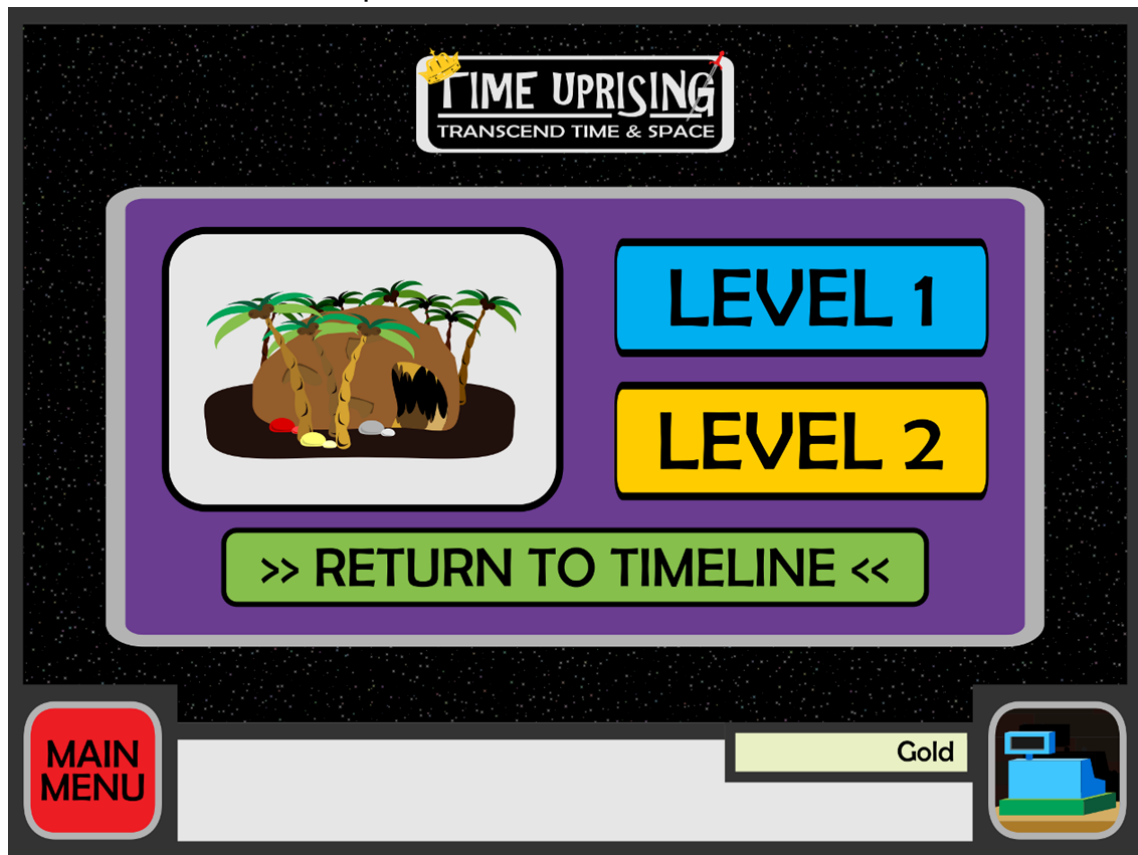
Japanese Scene Mockup

Win Notice Mockup

GOLD:

RODELLE'S HEALTH:

TROOP LEVEL:

TOWER LEVEL:

- LOCKED -

- LOCKED -

WAVES REMAINING:

CONGRATULATIONS!!
YOU'VE SUCCESSFULLY
STOPPED THE UPRISING!!

WOULD YOU LIKE TO
CONTINUE WITH THE
NARRATIVE CUT-SCENE?

CONTINUE   SKIP

REPLAY   TIMELINE

Lose Notice Mockup

Timeline Menu Mockup

Level Selection Screen Mockup

Galactic Tower Store Mockup

WELCOME TO THE GALACTIC TOWER STORE!!

SELECT A TOWER TAB TO VIEW UPGRADES

MELEE TROOPS TOWER

TOWER HP
Lvl

INCREASES TOWER'S DURABILITY
COST:

SPAWN
Lvl

INCREASES SQUAD UNIT'S SPAWN SIZE
COST:

TOTAL:

PURCHASE UPGRADE

YOUR GOLD:

SHADY SEAMUS

THE GALACTIC TOWER PRISON

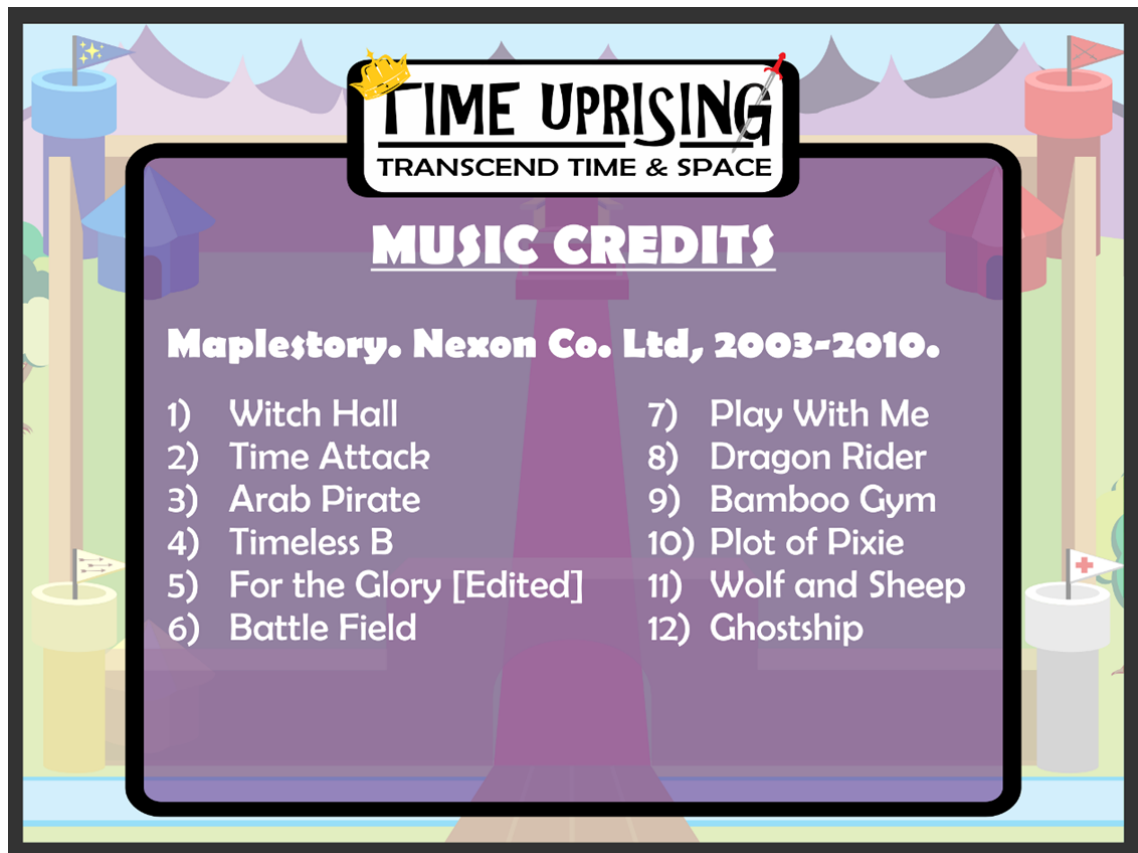# MUSIC & SOUND EFFECTS

Overview

Since this game has a comical art style with fast-paced gameplay, our music tracks are upbeat, mostly in the major scale, and somewhat cheesy for comedic effect. For sound effects, we have two separate types: animation sound effects—which are intuitive sounds to match the gameplay animations, and then signifier sound effects—which notifies the user of an automated response for certain game mechanics.

Music Tracks

All music tracks are taken temporarily from Maplestory MMORPG, but may be replaced later on in development.

Sound Effects

Sound effects are royalty free, from various sources.

FILE TREE & NAMING CONVENTIONS

Overview

Partway through our development process, we discovered the necessity of having a standardized file tree for development and file sharing. Naming conventions were also necessary to ensure that all code was functional for the the build. As such, we've put together the following outline and list of key components.

File Tree

- Fonts
- Scenes
  - Prehistoric
  - Medieval
  - Japanese
  - Modern US
  - Space
  - LevelLoader
  - Menu
  - TowerStore
  - EraSelector
- Resources (each resource folder has a texture folder; PF = prefab)
  - BaseTypes
    - Target
  - EnemyAI
    - EnemyAIManager
    - EnemySquad
  - ProgressBar
    - Progressbar
  - State
    - Upgrades
      - EXP
      - TowerUpgrades
      - UnitStatistics
    - GlobalState
      - Gold
      - LevelProgress
  - UI
    - DialogManager
    - Dialog.txt
    - GameManager
    - LevelLoader
    - EraLoader
    - Menu
    - TowerStore

- CutScene
  - o Squads
    - SquadManager(PF)
    - Squad(PF)
  - o Towers
    - Tower
    - MouseManager
    - ClickBox (Area for Mouse click verification)
    - AbilityTower(PF)
    - UnitSpawnerTower(PF)
  - o Abilities
    - Heal
    - Bomb
    - Multiplier
  - o Units
    - Unit
    - Archer(PF)
    - Mage(PF)
    - Swordsman(PF)
    - Peasant(PF)
    - King(PF)
  - o Weapons
    - Arrow(PF)
    - IceBombEmitter(PF)
    - IceBomb(PF)
    - CrossBow
    - Dagger
    - Pitchfork
    - Torch
    - Sword
    - Weapon
    - Effects
      - FrozenEffects
- Standard Assets (Particle Effects folder from Unity)
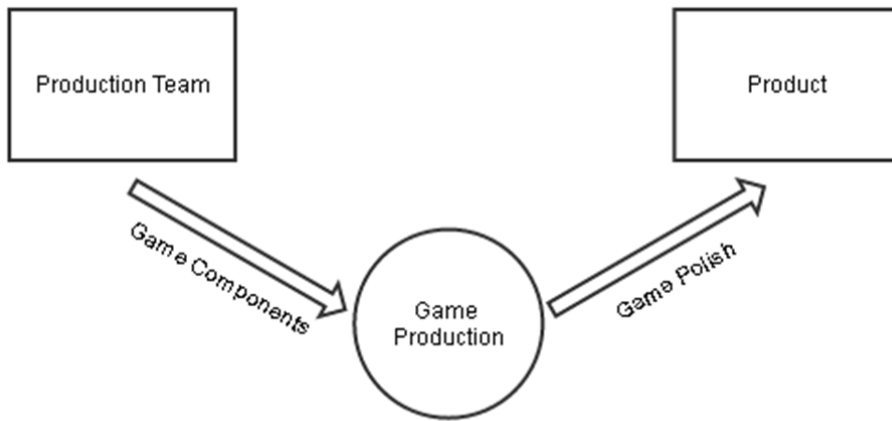
Naming Conventions
- kClassConstantName
- ClassName
- EnumNames
- localVariables
- publicClassVariableName (public variables and private variables w/accessor/mutators)
- FunctionNames
  - o AccessorMutatorFunctions
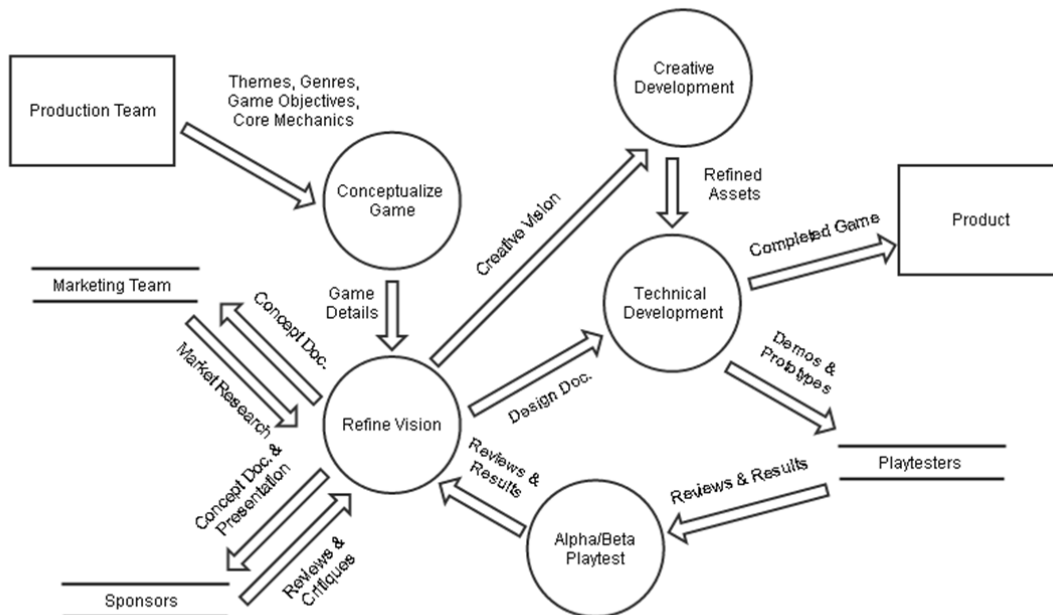
DEVELOPMENT PROCESS

Data Flow Diagrams
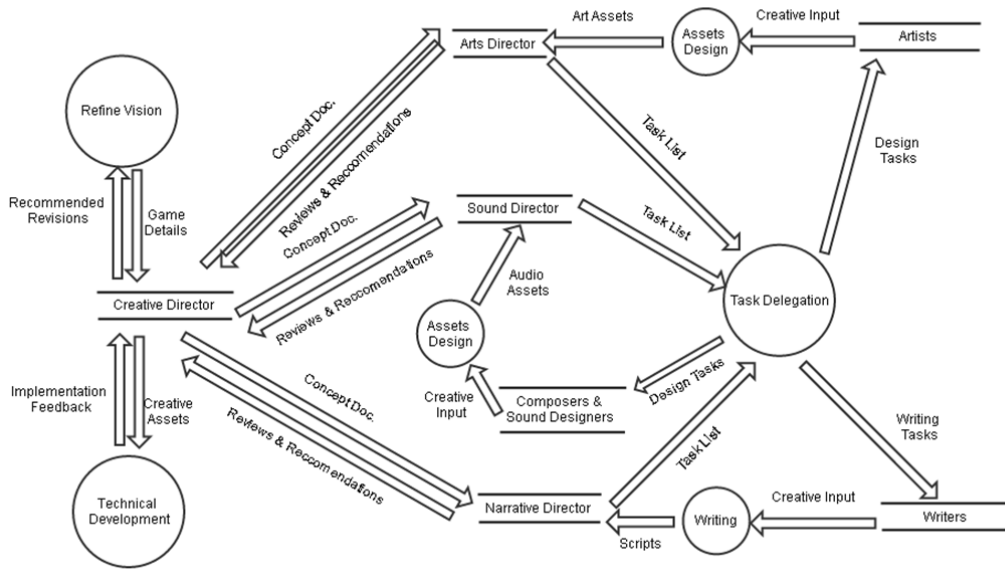The following data flow diagrams shows a general overview of our development process.

Concept Diagram:

Level 0 Diagram:

Creative Sub-level 1 Diagram:

REFERENCES

Design Document Templates

Design document based on the following template:

http://courses.washington.edu/css385/2014.Spring/DesignDocTemplate.doc

This template was a revised version of this:

HTTP://FORUMS.XNA.COM/FORUMS/T/229.ASPX

HTTP://INDIEPATH.COM/PUBLIC/DESIGNDOCUMENTTEMPLATE01.DOC

A few sections of the document are based on the design template in this book:

Fullerton, Tracy. Game Design Workshop, 2nd Edition: Elesvier Inc, 2008.

Footnotes

[1] Target audience demographics based on the following chart:

http://www.theesa.com/facts/pdfs/esa_ef_2013.pdf

[2] Purchase justification research basedon the following report:

http://blog.apptopia.com/wp-content/uploads/2013/05/Demo-Graph-1.png