MODERN MALWARE

DESIGN DOCUMENT
VERSION 0.5: FINAL2
JUNE 11MAY 13, 2014

BY THE TRT TEAM

BRANDON ROTH, MELISSA KJELGAARD, JASON DAILEY, JOSEPH HOFF, AND
EMMETT SCOUT

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VERSION HISTORY

Version 0.1 – May 5, 2014
- First version of the document. Template based on link noted in "Links" section
- Removed "Mods" and replaced a few sections are based on the template in *Game Design Workshop* by Tracy Fullerton.

Version 0.2 – May 13, 2014
- Added to Feature Set and Gameplay
- Added Enemy Types and Weapons
- Added Art Assets – Enemies, NPCs, and Environment
- Misc Details

Version 0.3 – May 20, 2014
- Added significantly to Game World and Single-Player Game sections
- Minor additions to other sections

Version 0.4 – May 28, 2014
- Added new art asset
- Added tile editor details and sound/music overview

Version 0.5 – June 11, 2014
- Final additions

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GAME OVERVIEW

Game logline
Modern Malware is a comedic action-adventure game in which the
player must travel inside their computer to uninstall an antivirus
program gone rogue.

Gameplay synopsis
Modern Malware is a combat and exploration action-adventure game.
Using their trusty Cursor Sword and Hourglass Shield, the player
travels across the computer kingdom, battling corrupted files,
viruses, and other enemies. The goal of the game is to find the
system administrator, who will defeat and uninstall the antivirus
program. The primary game mechanic is combat, wrapped around and
layered in humor and dialogue. The comedic theme revolves around IT
and CS related humor and is the real driving force of this game.

GAME DETAILS

Description

~~The beginning of~~ Modern Malware ~~starts~~ begins with ~~as~~ a normal day in the IT department ~~for the player~~. The player turns on the terminal and logs into the computer…_only to discover that an unknown antivirus software has gone berserk and is rampaging through computer files, corrupting data~~,~~ and rendering the computer unusable. The player then takes on the responsibility of finding the system administrator, the only individual who could possibly restore balance and stability to the computer.

The player is transported to a fantastical, virtual world inside of the malfunctioned computer, where the journey to find the system administrator takes place. The system administrator is the only one who has the power to uninstall the antivirus program and save the computer. Along the way, the player fights against hostile malware, bugs in the code, and other minions of the anti-virus program.

The setting and theme of the game is defined by and lead by IT and CS humor. The story, the characters, the enemies, and especially the world, are all created and designed with 'nerd' comedy in mind. The jokes and inside/esoteric references should all hit home with our core target audience of CS students and professionals.

Modern Malware draws inspiration from top-down action-adventure games like ~~Pokemon~~Pokémon and Legend of Zelda. It plays most similarly to Legend of Zelda, with a single protagonist who collects various weapons, talks to NPCs, and explores the landscape to succeed in their quest.

Game genre?
Action-adventure.

Is this single-player or multiplayer game?
This game's complete focus is single-player. For future implementation, we could have a multiplayer mode where each player has a computer that is malfunctioned and the other players can assist each other to fix each computer. Another possibility is for a multiplayer mode where~~Or,~~ there is one computer total that ~~is~~ has malfunctioned and ~~each~~ players traverses the virtual world of the ~~a single~~ computer together.

Is this 2D or 3D?
This game is entirely 2D and relies on simple, 2D aesthetics to create an interesting, humorous atmosphere as the player struggles to understand what is wrong with the useless bucket-of-bolts computer they so desperately want to use.

Where does the game take place? (world)
The game takes place in a computer fantasy world. The player explores a parody virtual world of the complicated, simple, and dumb truth to the inner workings of a computer in the context of IT and Computer Science.

What do I control? How many characters? Can I use vehicles?
The player controls a single protagonist, a hero character. The player has a companion NPC, similar to Navi in Legend of Zelda: Ocarina of TIme. This companion is a single 'bit' whose only responses can be yes or no. This bit also has some combat capabilities and serves as a guide when the player is confused.

There are currently no vehicles in the game. For the future, we could have the player drive computer-like vehicles such as a bus (poking fun at internal and external bus in computer architecture).

What is the main focus?
The main focus of Modern Malware is completing quests, defeating enemies, trying to understand why the computer is malfunctioning, and most importantly to find the system administrator.

How long the game lasts? Or how long game matches last?
The game is expected to take 10-15 minutes from beginning to end. Though it contains a full story arc, the game has a quick, engaging pace. Gameplay and story are focused on a single quest, with few distractions to slow the player down.

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Comparison
Legend of Zelda - For the original top-down open-world experience of a single world that acts as a path to reach other destinations and caves.
Legend of Zelda: Ocarina of Time - For the concept of a persistent sidekick/guide.
PokemonPokémon and Minicraft - For the more modern character and camera control scheme.

Bastion - For the combat system, player control, and versatility in moving in a 2D environment.

What is unique?
There are a lot of open-world games that involve traveling through cities and defeating enemies, but Modern Malware is not a game that has put combat and exploration first. The real draw to Modern Malware is the ~~humour~~humor, setting, and story content. There haven't been many games (if any) that have tried to make an entire game based around the comedic nature of IT and CS.

Why create this game?
To make an audience laugh regarding the wonderful joys of computers related fields of study. Any person, regardless of their technical expertise, should find the game amusing and enjoyable to play. ~~This~~ We hope that~~means that~~ people who struggle ~~using~~ to use computers may find the initial in-~~ ~~game struggle to use the computer ~~to be~~ amusing.

Coupled with pointed character animations, odd sound effects, and an interesting theme, we hope that players will walk away feeling like they know a little more about how computers work, if only intuitively. Our game can even make the most hardened computer science enthusiast laugh at deep computer science and software engineering concepts encased in a parodic package.

AUDIENCE, PLATFORM, AND MARKETING

Target Audience
We expect Modern Malware to appeal to teen-and-up audiences who appreciate a bit of CSS humor and a fun, fast-paced action-adventure game.

Platform
1. Humor
2. Sense of unknown
3. Learn a little about components of a computer

Top Performers
Legend of Zelda, ~~Pokemon~~Pokémon, Bastion.

Feature comparison
~~TBA~~Modern Malware's combat draws inspiration from Bastion, in which the player can equip one melee and one ranged attack at the same time. These attacks are mapped to the right and left mouse buttons. Pokémon and Legend of Zelda feature similar HUD and game world aesthetics. Additionally, we aim to create a game with similar story progression to that of Legend of Zelda and other semi-linear, exploration-heavy action-adventure games.

FEATURE SET

General features

- Dynamic melee and ranged combat: The player battles a range of different enemy types, from Trojans to Spyware, each of which has their own AI and fighting style. Learning effective strategies for defeating each type of opponent, as well as how to handle multiple types of opponents at once, will be essential to completing the game.

- Rich comedy and dialogue: The player will be able to speak with many NPCs throughout the world, advancing the story through scrolling dialogue and quests.
- Defragging minigame: The player will rescue corrupted NPCs by completing a minigame to defrag them.

Multiplayer features
We currently have no plans for multiplayer implementation.

Level Editor
Unity provides a built-in editing system to create levels. We will use ~~this which~~this, which will allow levels to be created easily. In addition, we can extend the level editor to better suit our needs with custom gizmos. We will not initially be providing users with a way to create or edit levels. Levels are designed using a third-party tile laying tool called TileEditor (http://unitypatterns.com/resource/tileeditor/).

Gameplay
Gameplay is exploration and combat-heavy. The player will have to master combat - including melee and ranged attacks, blocking, and strategies for fighting various enemy types - as well as a defragging minigame. The primary goal is to complete the main quest, which is supported and developed via the player's interaction with various NPCs and story events, to destroy the final boss and save the virtual world.

THE GAME WORLD

Overview

~~TBA~~The game begins in the real world, but the player is quickly transported to the fantasy world where they will spend most of the game. This is a stereotypical high fantasy world, complete with roving monsters, helpless peasant folk, and monsters inhabiting dangerous towers. The twist? This fantasy world represents the interior of a computer. The roving monsters are dangerous malware; the peasant folk are innocent files and processes inhabiting towns laid out like computer chips; and the dangerous towers are directories, containing vital knowledge for the player's successes. In their quest to find the system administrator and defeat the anti-virus program, the player will travel across the computer kingdom, restoring order by vanquishing the malware and curing corrupted files.

Key locations

Key locations

- Starting Zone: The player is transported to a rocky area where they meet their faithful pet, which accompanies them on their adventure.
- The Cursor Sword in the Stone: In a meadow adjacent to the starting area, the player finds their trusty Cursor Sword and Hourglass Shield embedded in a stone. They also encounter a corrupted ~~file which~~file, which they must defrag (minigame to be implemented at a later stage of production), and which becomes their combat mentor. After they pull out the sword and shield, the meadow is swarmed with enemies.
- The NPC Village: After learning combat skills, the player is guided to the nearby village, where friendly NPCs direct them to the Sys Tower.
- The Sys Tower: The player travels here to find the system administrator and have a final showdown with the anti-virus program. However, the tower is swarming with other enemies, which the player must fight through first.

Travel

Movement is controlled with WASD.

Scale

Modern Malware takes place in a world which is technically tiny, but will feel like a vast fantasy land to the player.

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Other elements

The full game may include weather based on different computer states.~~TBA~~

Camera

The main camera of the game will always maintain the player's character in the middle of the screen. As the player moves around, the camera will move in the same direction and amount. This will ensure that the player is always in the dead center of the screen.

GAME CHARACTERS

Overview
The player controls the virtual avatar of a computer user as they quest around the computer kingdom. They acquire a friendly pet which can answer questions (though it can only answer 'yes' or 'no') and helps the player learn combat skills. There are also NPC villagers which give the hero character hints about which way to go, as well as numerous enemies and a final boss enemy.

Character creation
We plan to have a few customization options for the hero character, such as color and tint. The player will design their character and enter a 'username' for their character at the beginning of the game.

Enemies and monsters
There are several basic enemy types:

- Corrupted File: Basic melee unit. The Corrupted File is neither especially strong nor especially clever, but groups of them can overwhelm the player.
- Spyware: Basic ranged unit. Spyware can also impersonate friendly NPCs in order to launch sneak attacks on the player.
- Trojan: Slow-moving but powerful melee unit. The Trojan can block incoming attacks and invades NPC villages.
- Worm: Harassing melee unit. The Worm can burrow underground and pop up to ambush the player. While underground, it moves very quickly. When injured, it will spend more time underground, popping up to distract the player from other attacks.

There are several basic enemy types, which will be detailed and expanded upon in later versions of this design document.

There is also a powerful boss enemy (the anti-virus program) which will appear at the end of the game and which the player will have to destroy to win.

USER INTERFACE

Overview
Modern Malware features a clean, barebones HUD with health displayed at the upper left-hand corner of the screen. The player will also be able to toggle the visibility of the quest log.

Details
The demo version of Modern Malware will not allow players to die, but will display a counter underneath the health bar which increases every time the player's health runs out.
The quest log will contain information about the location and objective of the hero's currently active quests. The main quest line will appear at the top in bigger text. Side quests will appear below the main quest in the order of most-recent first. There will be arrows to scroll through the quest log if the player has more quests than will fit in a page.

OBJECTS

Overview

~~TBA~~The full game will include various objects which the player can collect to help them in their quest, such as armor, weapons, enchanted amulets, and the like. It may also include quest objects which the player must retrieve on behalf on an NPC in order to advance.

Weapons

- Cursor Sword: The hero's trusty blade. Can be swung in the direction of the cursor by clicking LMB.
- Cursor Darts: A throwable version of the Cursor Sword. The player can use this ranged attack either by clicking and holding LMB for .3 seconds or by clicking LMB while pressing Shift. Ranged attacks fly in a straight line in the direction of the cursor.
- Hourglass Shield: Activated with RMB, the Hourglass Shield will absorb attacks. After every three attacks it absorbs, the Hourglass Shield will have a brief cooldown period before it can be activated again.

- ~~Cursor Sword~~
- ~~Cursor Darts~~
- ~~Hourglass Shield~~

MUSIC AND SOUNDS EFFECTS

Overview

Music will be electronic in nature, very bit-like to indicate the sense of space within a computer. As the player progresses through dungeons, background sound bit-quality reduces to match the sound that the computer understands at such a low-level. Player shooting, hits, and explosion will be electronic as well, kind of like simple laser sounds from Star Wars. Explosions will metallic and robotic to further indicate that all the events are taking place in a computer.
~~TBA~~

ART

## What kind of style will be used in the game?
A cartoon/comic style will be used in the game to help solidify the idea that this is a game based on humor. The characters will be very cute and play on the names of the corresponding computer terminology.

Needed building models
- CPU "hut" - a kind of gym for thread/process NPCs
- Villager "houses" themed as different computer parts
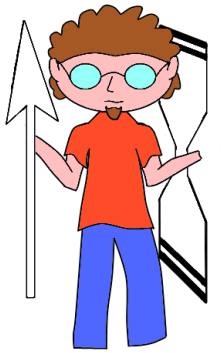- System Tower

Scenery models
- Trees
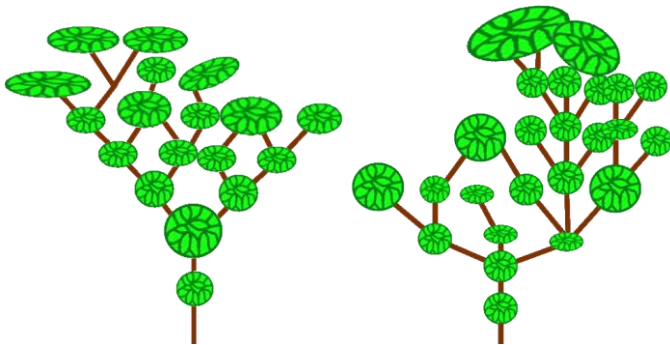
- Rocks, tall grass, roads, System Admin Throne

Character models
Hero model(s) for the player character.

Enemy Models:
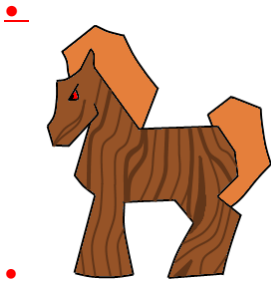- Corrupted File - demonic looking file

- Worm - an actual worm
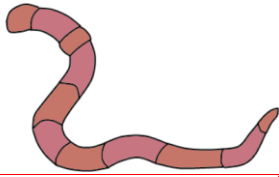
- Trojan - a horse
  -

  -
  -

- Spyware -– a spy

- Final Boss <name TBD, Nort'un temp name>

NPC Models:

Threads - a thread with eyes (like clippy) and legs

Processes – ???
Files – files w/ eyes and legs
Bit Pet – 1 or 2 depending on state
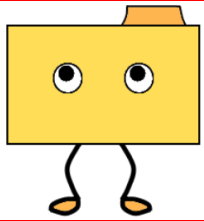
Particle effects
- (Possible)Corrupted aura, sort of red particles that come off of corrupted files/terrain
- 1s and 0s following Bit pet's movement (like a faerie dust trail)

Other
- Cursor Projectile
- Hourglass Shield

SINGLE-PLAYER GAME

Overview

Single-player is the only mode planned for this game. Single-player is story-driven and combat-focused.

Details

Gameplay progresses linearly, with a strong emphasis on story and humor. The player's driving reason to play the game is to unlock more of the story, though they should also enjoy the combat and quest system along the way. The main storyline consists of a series of interlocking quests. For example, the player will encounter a mentor. In order to interact with the mentor, they will need to defrag it. After that, the mentor will teach the player to fight, and the player will receive a quest to destroy some nearby enemies. The player will proceed through the game using their combat and defragging skills to help various NPCs, who in turn will give the player directions and help them reach the Sys Admin Tower. TBA

Story

At the beginning of the game, the player chooses a username. This will be important later. Unfortunately, just as they log into their computer, they are assailed by a flurry of popups from their anti-virus software, which has gone rogue and threatens to destroy every file in the system. The player then travels to the virtual world in search of the system administrator, who is the only one capable of uninstalling the anti-virus.

The player quests through the realm, getting direction from helpful file-peasants and their own personal bit-pet. They finally reach System Tower, where the administrator can purportedly be found. The player battles through swarms of malware and bugs to reach a terminal which gives them the name of the system admin – the same name that the player entered at the start!

Realizing that they had the power all along, the player levels up just in time to confront the anti-virus program and save the kingdom.

Victory conditions

Victory is dependent on successfully completing the main quest. Once the player has completed the quest and slain the final boss, the game ends.
To win, the player must defeat the final boss.

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RESOURCES & LINKS

Links to related resources

Design document based on this template:

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.

Field Code Changed

Field Code Changed