The Shaman Engines
Game Design Document

Hammertank Games
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John Stone, Producer

Table of Contents

Major Revision Summary

September 2, 2009 – Thom Strandberg
Created initial document, blocked out the sections.

September 18, 2009 – Thom Strandberg
Blocked out the sections in a different, better way.
Added level flow descriptions.
Note: It is not a crystal tree. It is like the Life tree.

September 20-30?, 2009 – Thom Strandberg
Added lots of detail to the Gameplay Section
Added Visual Style entry
Added Project Scope
Added Summary

October 7, 2009 – Thom Strandberg
Note: Powers are now all combined into one
Note: Our vision is fast paced shooting stuff
Added Weapons
Added Shaman Form
Added Level0

October 8, 2009 – Thom Strandberg
Added Probe descriptions
Added Levels1-3
Added Controls

December 10, 2009 -Thom Strandberg
Added some maps

December 11, 2009 -Thom Strandberg
Added event list
Added object locations
Updated some things that no longer apply

December 24-26, 2009 –John Stone
Added formatting to GDD
Added Table of Contents
Rewrote the vast majority of it
Reworded a lot of improper sentences and fixed a lot of spelling mistakes.
Combined both copies of each level into one place
Removed the dialog and walkthroughs from the levels to be in their own appendix
Set probes descriptions into their own appendix

December 31 –Thom Strandberg
Adjusted Levels section to contain the old level events

January 7, 2010 –Thom Strandberg
Added out of battle design

January 15, 2010 – John Stone
Fixed the document formatting, spelling errors, and page breaks

Game Overview

High Level Concept

The Shaman Engines fast-paced FPS mech-shooter on Mars, where the mechs have been infected by spirits and you must figure out why.

Summary

War hero, Kane Esperia, wants life on Mars to return to peace following a long period of constant war. However, one day a mining accident unleashed ancient powers that wreak havoc upon the populous of Mars. To do this Kane will fight through three levels of fast-paced action and throngs of enemy mechs. Kane must equip various weapons and utilize his shaman powers to the best of his powers to survive. Only then can Kane unravel the mystery surrounding the Shaman Engines.

Each level is advances the story and takes place on Kane's path from the mine to the city and each level contains still-frame cut scenes to describe the events which are taking place and give further enhancement to the player. Between each level Kane also has the option to switch his primary weapon. As Kane progresses through each level, there are dialog audio probes hidden that recant parts of the incident which led to the unleashing of the Shaman Engines. Once Kane has completed the game, a new survival mode will be unlocked that allows him to face an endless swarm of enemies in the city level to play for the high score.

Visual Style

The Shaman Engines takes place on Mars. Details of Mars' landscape can clearly be seen with the red plateaus and canyons being where the majority of the game takes place. Upon these plateaus and in the canyons, the player must fight his way to a futuristic looking city that's situated on the top of a large plateau. The Shaman Engines is attempting to make the landscape and city as realistic as we can.

Project Scope

The game is fairly large in terms of scope. We have 4 levels (the first of which is just a short little tutorial) and the last 3 levels should take the player about 10 minutes to complete. After each level there is a short still-image cut-scene that we need recorded audio dialog for. We also need a realistic physics and animation system for realistic game play. The Shaman Engines also requires several basic types of AI dependant on the type of the mech. A realistic physics and animation system will drive the mechs. There will be a powerful shaman form that can be activated for a short period of time and an arsenal of weapons that the player can use throughout the game.

Gameplay and Mechanics

Game Flow

Note if the player dies and continues, he's always taken back to the start of the level
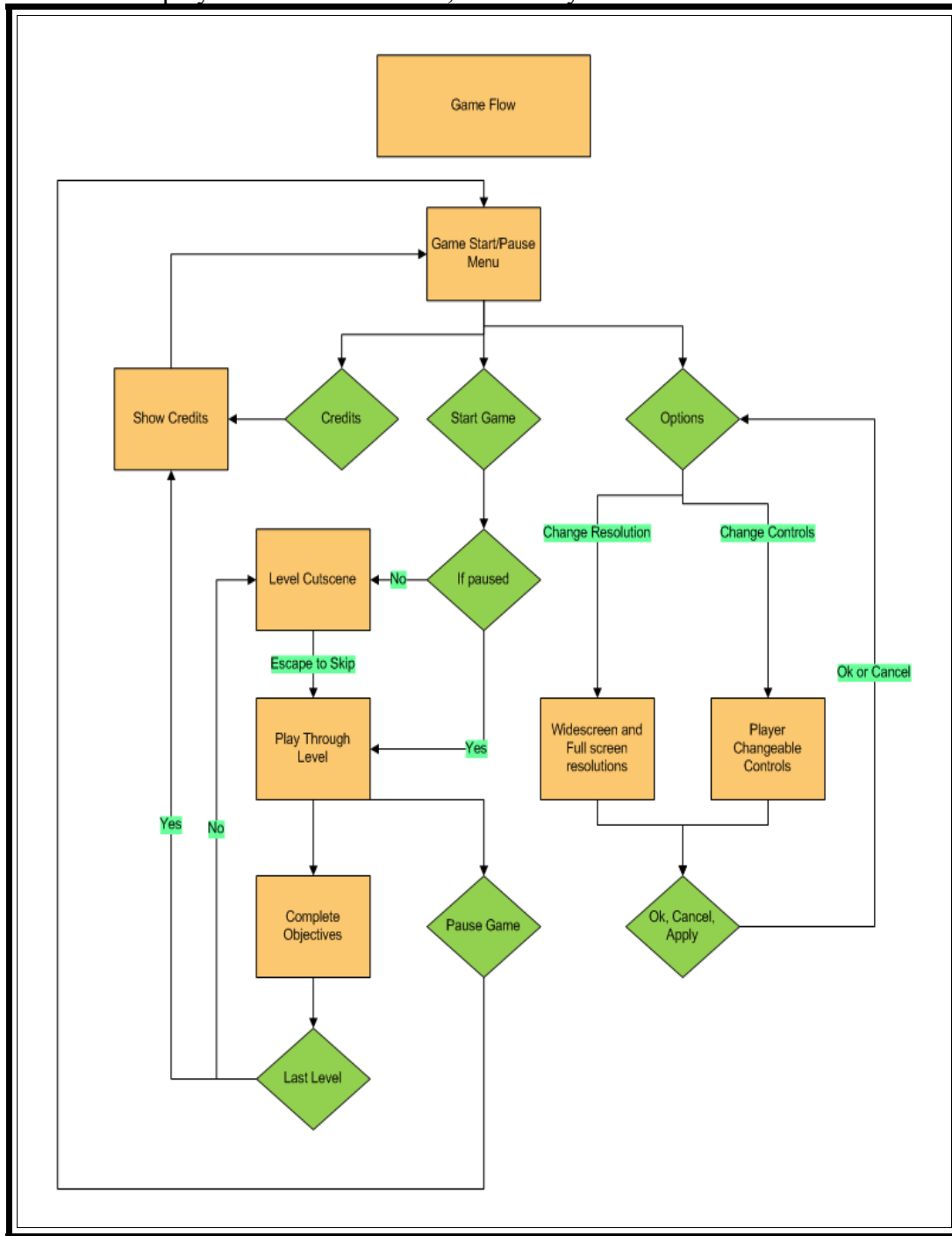
Mechanics

Physics:

- Gravity
- Jump Jets allow for boosting
- Precise collision between game objects
- Height map following using spring constraints

Movement:
- Walking – Kane can move in any direction (see controls)
- Boosting – thrusts Kane into the air
- Shaman Form
    - dashing – quick movement in one of the four main directions
    - boost dashing – boost, then use a dash in the air
    - running – basic movement speed is increased

Objects:
- Items – Throughout each of the levels there are items situated to aid Kane in his endeavor. These are broken into two different types, ammunitions and restoration (see Appendix D)
    - Ammunitions – restores Kane's ammo
    - Restoration – restores Kane's health/shaman powers
- Probes – These objects are audio storage devices that contain decrypted audio clips that Kerner's attempted to send to Kane. Picking these up adds more background and detail to the story, yet they're optional to pick up (see Appendix C)

Shaman Form:
- When Shaman power is activated it makes the player's mech enter Shaman Form. Shaman Form is incredibly powerful but only lasts for a short period of time depending on how much shaman energy the player has at the time.
    - Increased speed
    - Increased defense
    - Increased offense
    - Allows dashing

Critical Shaman Form:
- When the player is near death Shaman Form can be activated without using any Shaman Energy. This can only be done once a level. Restoring health will remove the effects of the critical shaman form and restore the amount shaman energy it was at before the Critical Shaman Form was activated.

Elemental Types:
- Normal
    - Effect: Normal damage to mechs
    - Advantage: None
    - Disadvantage: None
- Energy
    - Effect: Electrical energy attack through bullets to mechs
    - Advantage: Slightly increased attack, possibility to disable a mech
    - Disadvantage: Overuse can cause a weapon to overheat, takes 5 seconds to cool down
- Explosive
    - Effect: Attack explodes on contact, also results in splash damage
    - Advantage: Huge increase in attack power
    - Disadvantage: Slows down weapon firing power
- Dark Energy
    - Effect: Attacks hit and cause a large AOE attack damaging everything inside the circle
    - Advantage: Hits all enemies in range of the bullet's collision at the same time
    - Disadvantage: Bullets take up a lot more space in the clip so you can carry less ammo of this type.
- Radioactive
    - Effect: Mechs hit with this element type takes damage over time
    - Advantage: Continues to damage a mech after its been hit
    - Disadvantage: Initial weapon hit damage is decreased

Controls

Moving:
- W – Forwards
- S – Backwards
- A – Strafe Left
- D – Strafe Right

Activate/Deactivate Shaman Form:
- Shift

Jump:
- Space – Hold longer for higher Jump

Dash:
- Double tap in any direction

Fire Primary Weapon:

- Left Mouse Button

Fire Secondary Weapon:
- Right Mouse Button

Switch Primary Weapon:
- Mouse wheel Up/Down

Arm Secondary Weapon:
- 1 – Arm/Disarm first secondary weapon
- 2 – Arm/Disarm second secondary weapon

Open Game Menu/Pause Game:
- Escape key

Select Load Out:
- Using the mouse, the player can set primary and secondary weapons

Load Out

Before each of the levels after the cut scene has finished or the player has pressed escape to skip the cut-scene, the load out screen is opened. The load out screen contains a list of all of the weapons that a player has available to them at the time. The load out screen tells the player as well the stats, benefits, and disadvantages of using each weapon.

Game Menu

The game menu has two forms. The first is when the game is first launched and it takes the form of the start menu. The second is when the player hits the Esc key from inside the game. Most of both menus share commonalities between both of them; however there are a few small differences.

Start Menu:
- Start Game – Starts a new game from the tutorial level

Pause Menu:
- Resume Game – Resumes the game from the current position

Common:
- Load Game – Loads a saved game, saved games are launched from the start of the saved level
- Save Game – Saves a game
- Options – Opens the options menu, the options menu has two buttons
  - Change Resolution – Allows the player to change to widescreen and various resolutions
    - Toggle Full screen/Windowed
    - Normal
      - 800 x 600
      - 1024 x 768
      - 1280 x 1028
    - Widescreen
      - 1024 x 600
      - 1280 x 768
      - 1440 x 900
  - Change Controls – Player can change the default key configuration for the following (players can not change firing with the mouse or escape to open the in-game menu)
    - Forward
    - Back
    - Strafe left
    - Strafe Right
    - Boost
- Exit Game

Out of Battle Design

State Flow
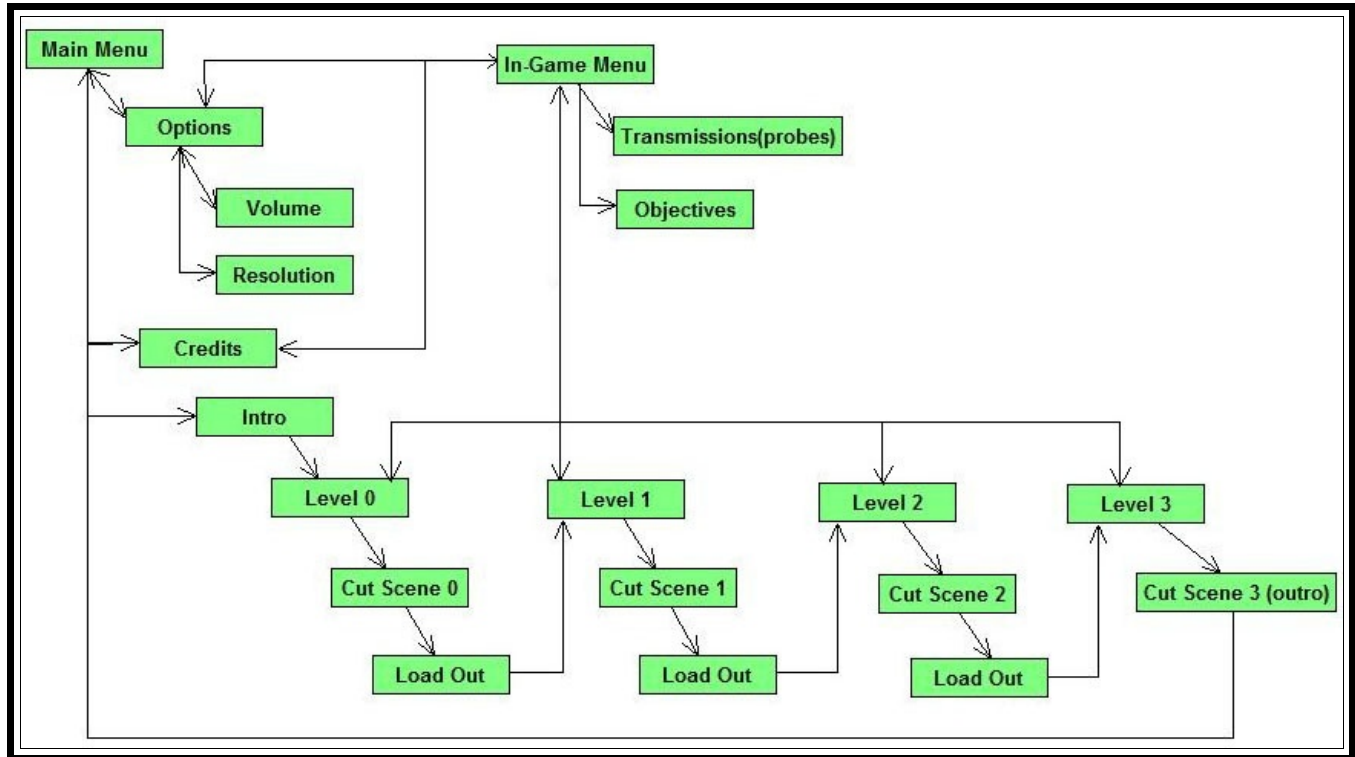
Screens

Main Menu

Main Menu Options

Main Menu Controls

HUD (In-Game)
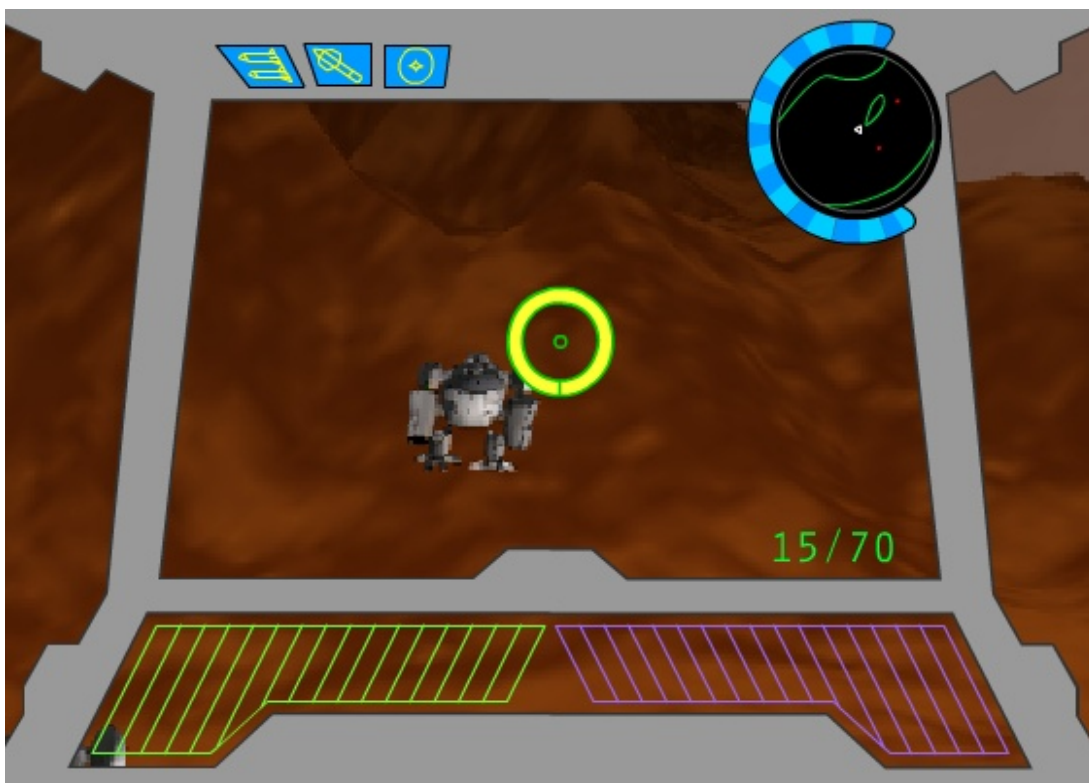
In-Game Menu

In-Game Options

In-Game Controls


```
ABORT                          ⊠

OPTION  CONTROL  BRIEF  TRANSMISSION

MOVEMENT:                ROLLERDASH:
     WASD                    DOUBLE-TAP WASD
LOOK:                    FIRE PRIMARY:
     MOUSE                   MOUSE LEFT
JUMP JETS:               FIRE SECONDARY:
     SPACE                   MOUSE RIGHT
CHANGE PRIMARY:          TOGGLE SECONDARY FIRE:
     MOUSE WHEEL             1,2
```

In-Game Brief


```
ABORT                          ⊠

OPTION  CONTROL  BRIEF  TRANSMISSION

OBJECTIVES
   GET TO THE DOME CITY




KERNER SAYS HE CAN EXPLAIN EVERYTHING IF I
CAN JUST MAKE IT TO THE CITY.
```

In-Game Transmission

Story, Setting, and Characters

Story

       Mars was colonized by refugees escaping the scene of a war-torn Earth. The colonists joined together to form a group known as the Martian Federation and became involved in a war for the resources that the existing corporations on Mars controlled. Kane Esperia joined the Free Martian Army, fighting for the independence of the Martian colonies. This came to be known as the First Martian War. As the war finally came to an end, a mutual peace agreement was cr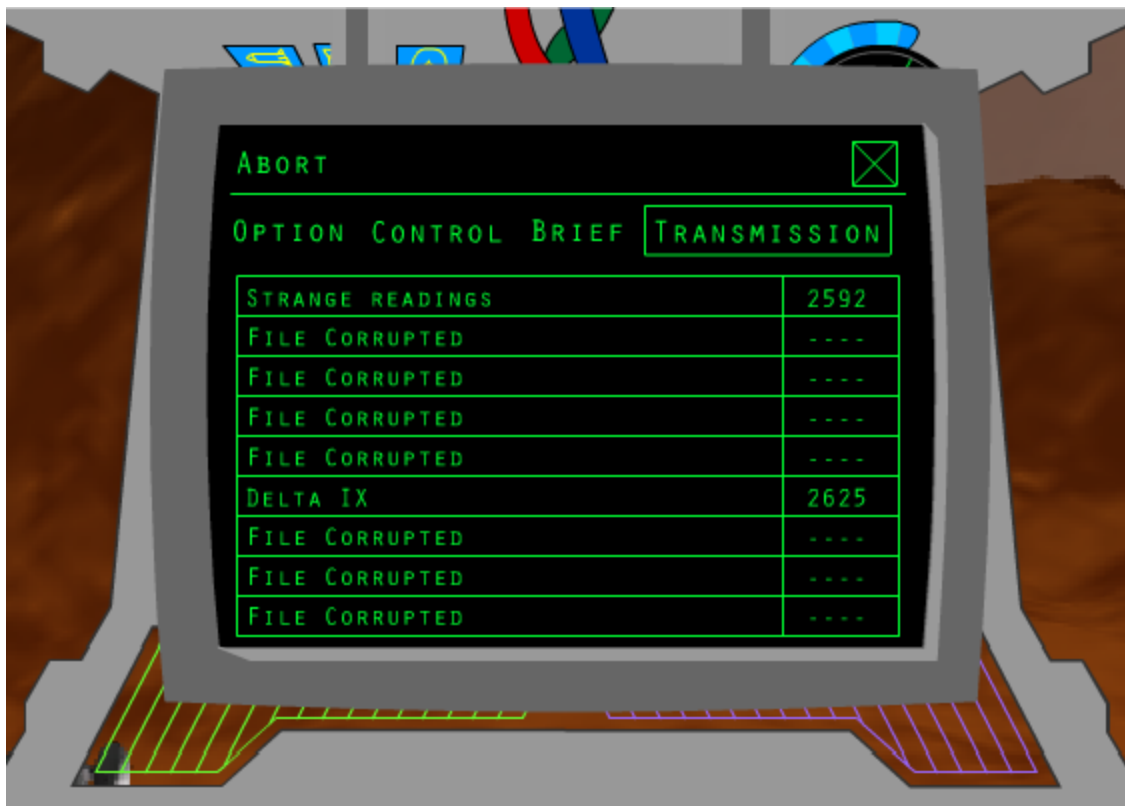eated and signed by all of the controlling entities on Mars. Under the peace treaty, the Martian Federation was reformed into a new form of government, becoming known as the Martian Free States (MFS), under which each city had their own government and was treated as a free state. Several heroes came to be well known after the First Martian War, and Kane Esperia was among those who emerged as a well-regarded war hero.

       In 2592, an exploration team on an expedition to find more resources entered one of the old pre-colonist era Martian mines in search of geothermal power sources. Kane Esperia, a talented mech pilot from the First Martian War, joined the expedition along with Frank Kerner, a renowned physicist. Kane detected a geothermal disturbance, and drilled through the side of a tunnel, entering a crystal-filled cavern. He tried to reach Kerner on the radio, but was blocked by some sort of interference. In the center of the cave lay a single seed-like formation of organic material. Kane approached the seed; attempting to lift it with the arm of his mech. Lights burst forth leaving the seed. Spirits began flowing from the cavern. The escaped spirits came to possess the mechs on Mars, augmenting their ancient mechanical technology with mystical abilities and powers.

       The clan leaders breaking the treaty and rose up against the Martian Free States, now empowered by the spirit powers bound within their mechs. They took control of multiple city-states in a bloody war that lasted over 15 years. The Second Martian War ended with the MFS calling a cease-fire to end the bloodshed. With no resistance, the clans began to cement their position as the new leaders of Mars.

       100 years from the day the spirits were released, Kane found himself in the cavern. All around him were the desiccated skeletons of ancient mechs and mining vehicles. Although 100 years had passed, mysteriously for Kane no time had elapsed. He attempted to radio his support team, getting only static and glimpses of strange messages from Kerner. The messages seemed to play endlessly as Kane made his way towards the cavern's exit. Upon exiting the cavern, a strange voice cut through the static, informing him that he was violating quarantine. Suddenly, swarms of mechs brought on by quarantine alarm attacked without warning, and Kane fought his way through the mineshaft towards the surface.

       Once Kane emerged from the cavern, he intercepted an old transmission from Kerner. In the message, Kerner mentioned the time flux around the entity, and informed Kane that by the time he heard the message, it would be 100 years in the future. A second transmission from Kerner, now 100

years older, asked Kane to protect the city from the incoming clan members. Behind him, Kane saw a great tree growing from the Martian desert.

Kane then made his way through the canyon, fighting off the clan-controlled mechs landing from drop ships as he approached the city. As Kane left the canyon he found himself in front of the gates of the city. As he approached, the gate in the cliff wall opened, allowing Kane access into the city. Kane now was fighting through a great swam of mechs that began to glow. The mechs he fought with seemed to have tendrils coming from them attached to the great tree. Kane continued to fight, moving through the center of the city to the park at the end where Kerner told him they would meet.

Kane reached Kerner, who was sitting in his wheelchair, tree roots were coming out from his back. Kerner told Kane that he had taken control of an old orbiting military weapon from the first Martian war, and that Kane must use it to destroy the city and the tree. Kerner had tried himself multiple times throughout the years, but the tree had taken control of him before he could activate it. Kerner told Kane that he was also the source of the power, along with the tree, and his reappearance was part of a great transformation that would end humanity. At this moment the tree sent a swarm of mechs into the domed city to attack Kane. As Kane fought them off, more and more mechs entered the dome, constantly surrounding Kane and attacking him until Kane finally transmitted the launch code and a great light swallowed the city. As the light dissipated and the blast left destruction in its wake, two souls left Kane's mech as it turned to ash. Then many more souls suddenly streamed forth from the city as both it and the tree were swept away by the blast.

Settings

The Shaman Engines takes place in the future on Mars near the beginning of the 27th century.

Characters

Kane Esperia – Famous war hero that mysteriously disappeared from history in a mining incident and the protagonist of The Shaman Engines

Frank Kerner – Solar-system renowned physicist involved in the mining incident and serves as the source of Kane's information throughout the story

Levels
Note the dialog for this scene and each other level is contained in Appendix A

Level 0

Synopsis:
This short level acts as a tutorial and introduces the player to the world of The Shaman Engines.

Introductory Material:

Intro Cut Scene
- o Player may press escape to skip
- o Dialog is contained in Appendix A
  4 images appear dominant in the cut scene. Mars, Mercenaries, Mining, and Mechs

Objectives:
- Familiarize the player with the basic mech controls
  1. Move the mech
  2. Learn to aim the camera
  3. Use the jump jets
  4. Dash
  5. Fire Primary and Secondary Weapons
- Follow Kerner
- Use Mining Laser on the rock wall
- Use MHM missiles on the heavy metal deposit

Physical Description:
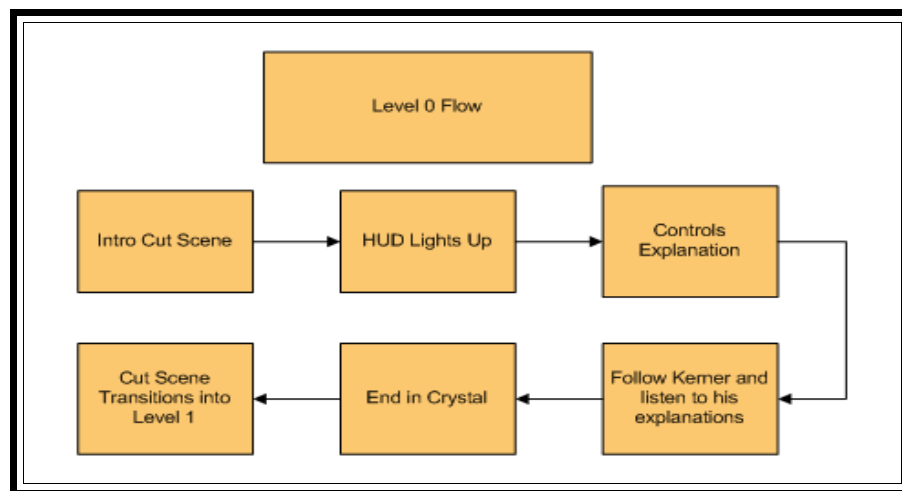- The mine is a long straightforward corridor.
- There are pieces of mining equipment around the mine
- There are flashing lights and sirens strung throughout the mine
- The last room is a large chamber filled with quartz-like crystals
- Some tendril-like structures protrude through the ceiling, floor, and walls of the tunnels.

Map:
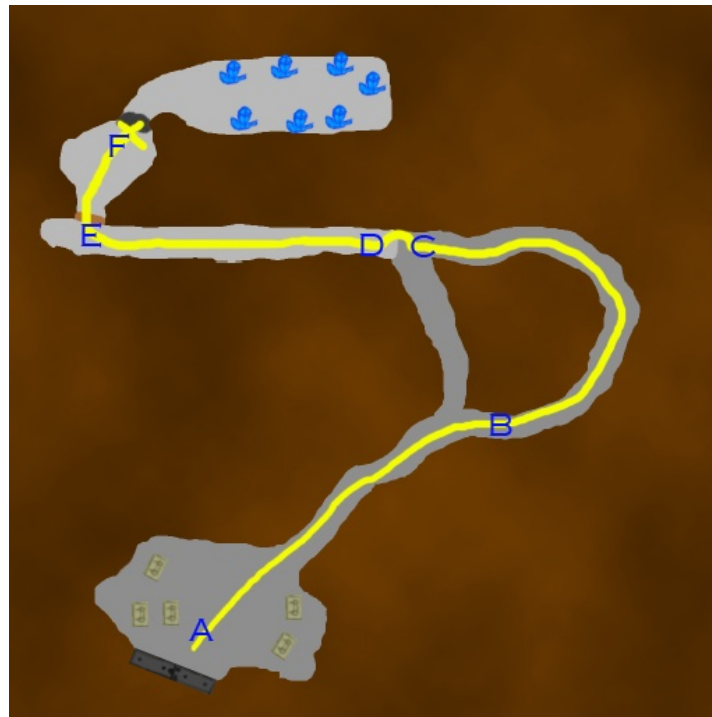
Level 0 Map

Level Flow:

Encounters:
- None

Level Events:

- The HUD elements light up and the mech's screen turns on **(A)**
- The player can now look around w/ mouse
- Kerner says *"Alright Kane, I know a war hero like yourself isn't used to this civvy tech.   So take a little time to reacquaint yourself with the controls and then I'll take you down."*
- Text box explains movement
- The player can now move
- When player moves Kerner says "Alright looks like you got it. Follow me."
    - Kerner goes down a tunnel and says *"We found a heavy ore deposit down here, we've been trying to work around it but if we want to keep surveying for geothermal energy sources we'll have to blow it eventually. That's what you're here for."* **(B)**
- When player gets close Kerner he says, *"Alright time to heat up your jump jets, we're going up."* **(C)**
- Text box explains jump jets
- Kerner jumps up to a higher ledge **(D)**
    - When player gets up Kerner says, *"Alright, now it's just a straight shot to the excavation area. Let's make it quick Courtney's first birthday is today."*
- Kerner starts boosting down the tunnel.
- Text box explains boosting
- Kerner stops next to a deformable wall **(E)**
- When the player gets close Kerner says *"Strange, looks like this tunnel collapsed again,   we've been getting strange seismic activity around here. Don't worry Kane, just   punch a hole in it with your mining laser."*
- Text box explains using the mining laser (primary weapon)
- Player can use the mining laser to open a hole in the wall
    - Kerner follows the player into the next room and says *"Good job Kane. Preliminary scans tel us there's a large chamber on the other side of this ore deposit. It's tough stuff, I've never seen anything like it. But those MHM's should crack it."*
- Kerner gives the player missle ammo
- Text box explains using MHM missles (secondary weapon)
- The player can use the missles to destroy a hard ore deposit in the wall **(F)**
- Kerner says, *"Nothing like some Mini-Helcion Missiles in the morning."*
- The crystal room is revealed

Closing Material:
   Cut Scene 0
      o Player may press escape to skip
      o Dialog is contained in Appendix A
      o Delirious looking images appear on as the camera pans from one part of the still image to another. The player catches fleeting glimpses of the crystal, strange creatures, Kerner, and something which appears to be coming out.
      o Upon completion of the cut scene:
         ▪ Player is sent to the load out screen
         ▪ Text box appears explaining the load out screen
         ▪ Player can use mouse to equip Kerner's Plasma Cannon. (Cannot unequip

mining laser)

Loud Out
- o Player is sent to the load out screen
- o A text box explains the operation of the load out screen
- o Player can now add the Plasma Cannon as a primary weapon (see appendix C)

Synopsis:
Chaos has broken loose everywhere. Kane wakes up from a 100 year temporal coma to find the world he knew completely different. Kane must now fight his way to the surface out of the mines.

Objectives:
- Get out of the mines
- Break down the barrier trapping Kane in the mine
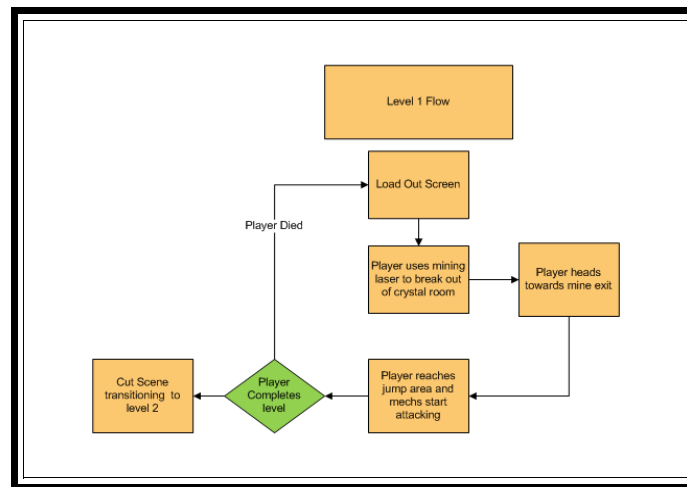- Blow up enemy mechs

Physical Description:
- This level takes place in the same place as level 0
- The mine has changed hardly at all being sealed off for 100 years.
- There are more broken down pieces of mining equipment and broken down mechs lying around.

Map:

Level Flow:

Encounters:
- Light Mechs attack periodically throughout the stage
- At E, Medium Mechs and Light Mechs attack the player simultaneously

Level Events:
- Player is in the crystal room **(A)**
- Player can use mining laser to create a hole in the wall
- Player can now proceed back down the tunnel **(B)**
    - As the Player is taking down the next wall Kerner's voice is heard in the static. *"Courtney turned 10 today... I wi... you were here... ... if only." The rocks collapse and the player continues down the tunnel which has caved in many areas. More messages come through in the static and loop, "They say I'm crazy... you're alive... Courtney climbed the cherry tree... leg, scared ... hell out of... two eggs... happy... year Kane... remember Delta IX... research... going well... more funding... She's dying Kane... no father should have to see... why can't I ... die"* **(C)**
- As the player reaches the area that Kane and Kerner jumped up a klaxon blares and mechs begin attacking as the player moves down the tunnel. **(D)**
- When the player gets to the entrance chamber a large swarm of weak mechs attack **(E)**
- Text box appears explaining Shaman Form
- When the player defeats the remaining mechs the level ends

Closing Material:
 Cut Scene 1:
    o Player may press escape to skip
    o Dialog is contained in Appendix A
    o Images of Kane standing just outside the mine and a giant tree in the distance

 Loud Out:
    o Player is sent to the load out screen
    o Player can now select any 3 of these weapons as primary (see appendix C)

- Mining Laser
- Plasma Cannon
- Repeater
- Spread Cannon
- Hyper-Kinetic Rifle.
  - Player can now select any 2 of these weapons as secondary (see app. C)
    - MHM Battery
    - DEMC
    - Heilos Rocket

Level 2

Synopsis:

The player has now escaped from the confines of his 100 year slumber and the old abandoned mine. Now he must make his way through a large canyon area to reach the plateau city where Kerner is waiting for him.

Objectives:
- Explore the canyon and collect the audio probes
- Eliminate all enemy mechs that get in your way (note not all are needed to be destroyed, but Kane must survive long enough to get to the city)
- Reach the city gates

Physical Description:
- A red canyon with various crags and forks. A large tree can be seen in the distance above the canyons.
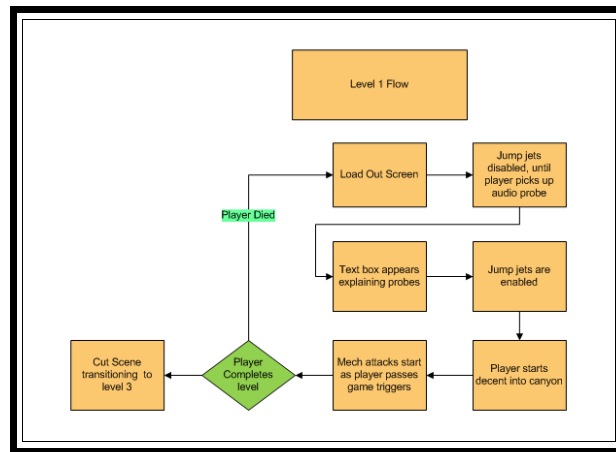- Red boulders of various sizes are strewn throughout the canyon.

Map:

Encounters:
- Many small platoons of light mechs
- Medium mechs line the canyon walls, triggers cause them to jump down and attack
- A few heavy mechs are introduced near the end of the level
- There's one optional shaman engine encounter to get a probe

Level Flow:

Level Events:
- There is a probe the player must pick up (jump is disabled) **(A)**
- Kerner's voice plays, *"Kane, I hope you receive this probe someday, it contains a temporal decryption code. It will allow you to listen to one of the many messages I've left you over the past 100 years. Yes you heard me right. Something strange happened down there... They're watching me Kane, please come see me and I'll explain more."*
- A text box explains probes
- Jump is re-enabled.
- The player travels through the level as mechs attack
- Triggers cause medium mechs to jump down off of the higher ledges to attack the player
- More ammo and probes can be found by exploring
- Once the player reaches the city the level ends **(B)**

Closing Material:
<u>Cut Scene 2</u>
  o Player may press escape to skip
  o Dialog is contained in Appendix A
  o Images:
    ▪ Kane standing just outside the city as it looms overhead
    ▪ Kane entering the city through the cliff wall
    ▪ Enemy Mechs waiting

<u>Loud Out:</u>
  o Player can select any 3 of these weapons as primary ([see appendix C](#))
    ▪ Mining Laser
    ▪ Plasma Cannon
    ▪ Repeater
    ▪ Spread Cannon

- Hyper-Kinetic Rifle
-
- Player can select any 2 of these weapons as secondary ([see appendix C](#))
  - MHM Battery
  - DEMC
  - Heilos Rocket

Level 3

Synopsis:
Kane has finally entered the city. He must fight his way to the park in front of Kerner's apartment complex. The player must then fight of an endless swarm of enemy mechs and make the decision on whether to decimate the city or not.

Objectives:
- Make your way through the city to the park
- Destroy all of the mechs outside of Kerner's apartment complex.
- Survive long enough to activate the orbital weapon
- Collect probes

Physical Description:
- Situated on a multi-layered plateau
- The city is domed with tall futuristic building
- At the end of the city there is an apartment complex where Kerner lives
- In front of Kerner's complex there is a large park with sparse vegetation
- Mechs are lined up all over the level

Placeholder Picture of the City

Map:
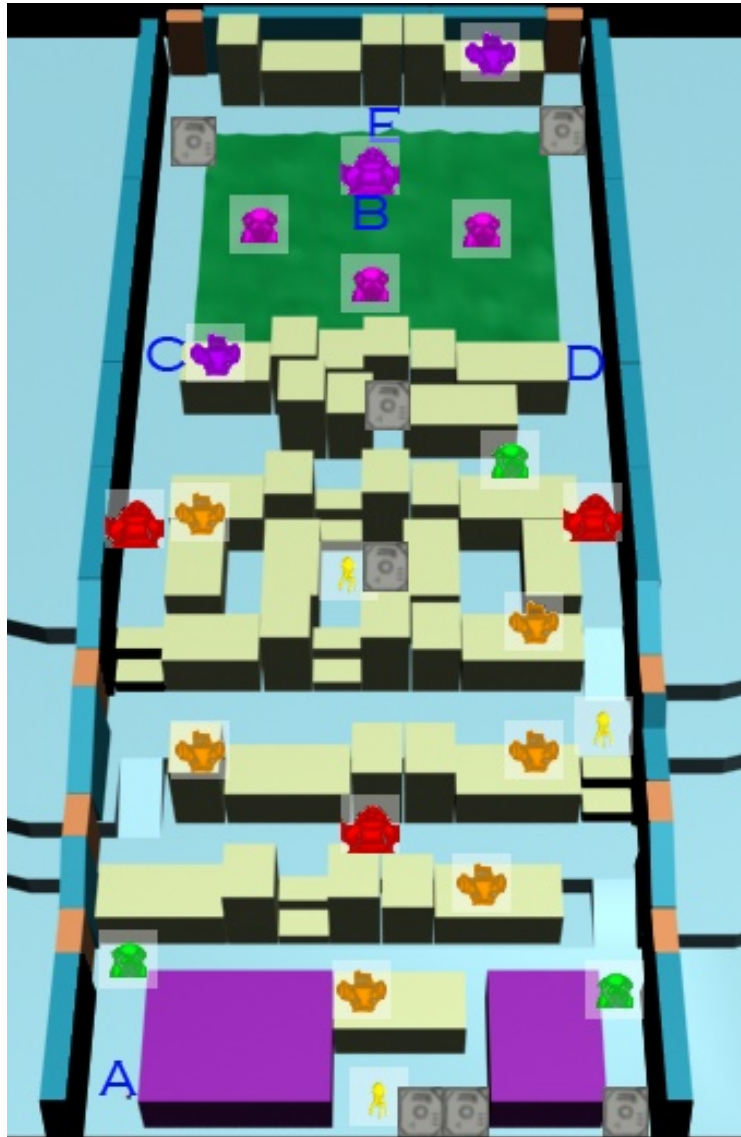
Encounters:

- Swarms of all types of enemies flank Kane from nearly every angle throughout the level
- All of the Enemies in the park are Shaman Engines
- Heavy mechs will be situated after several turns in the cutbacks.

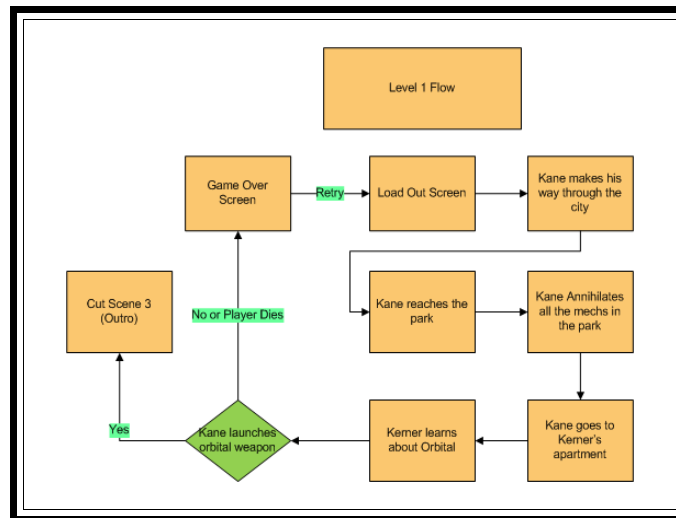Level Flow:

Level Events:

- Player starts at front gate **(A)**
- Many mechs attempt to stop the player
- More probes can be found
- Certain buildings can jumped up to and used as shortcuts around the switch-backs but will yield less probes/ammo
- The goal is to reach Kerner's apartment **(E)**
- When the player reaches the park and destroys all the mechs there a conversation with Kerner, *"Kane, it's good to see you are still in good form. Sadly I cannot say the same for myself. Even though the tree keeps me alive I am a hostage to it. It wants to return Mars to the old ways. We must not let this happen, it is our duty to destroy the tree and all those infected with Shaman Powers."*

  Kane responds, *"How can we do that? They're all over mars."*

  "No, they've come here, to this city, they know what I'm planning and they won't stop until I am dead. I've found an old weapons platform left over from the war. It still works and has enough firepower to destroy the tree and the city."

  "You'll kill thousands, Kerner, don't do this. There has to be another way"

  "There is no other way. I would have done it already but the tree won't let me. I'm transferring the launch controls to your mech. This is your decision Kane, I can do no more." **(B)**

- Exits become blocked by destroyed buildings **(C, D)**
- A window appears on the HUD that says which button to press to launch the orbital weapon
- Kerner continues to talk to Kane, at first urging him to press the button and then

begging him not to
- The level ends when the player decides to press the button
- Dying just leads to the game over screen

Closing Material:
    <u>Cut Scene 3 (Outro)</u>
- Player may press escape to skip
- No Dialog, just music
- Images:
  - Orbital weapon launching
  - Large tree hit by orbital weapon
  - Large Explosion

HUD
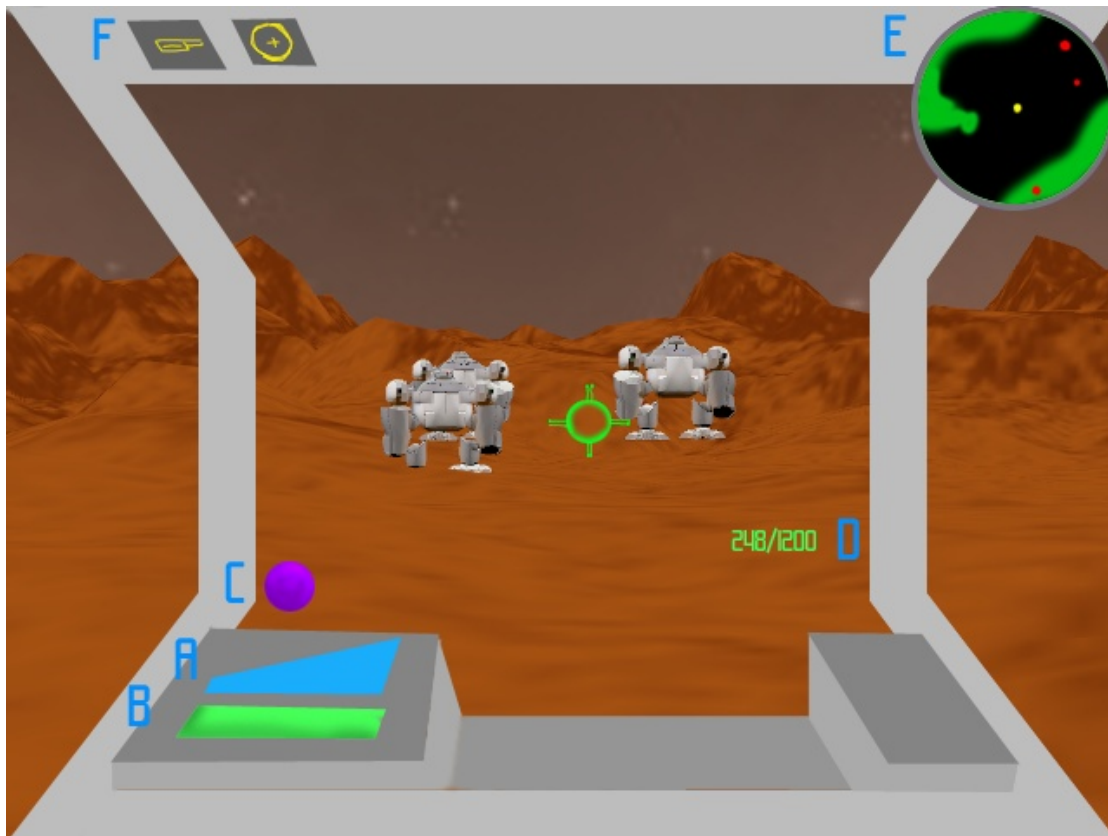
A – Boost
B – Health
C – Shaman power
D – Ammo
E – Mini-map
F – Secondary Weapons indicators

Enemy Mechs and AI

Light Mechs

Simple AI:
- Group up
- Charge the player recklessly
- Take the shortest path to the player

Details:
- Low armor – take a lot of damage
- Low life – die very easily (great to use splash type attacks on them)
- Low firepower
- High accuracy
- Only fires standard bullets
- Move Quickly
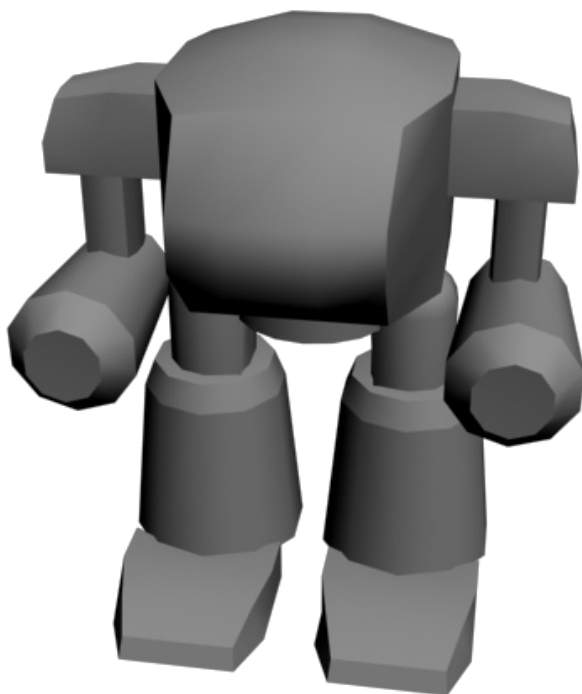
Medium Mechs

Advanced AI:
- Jump and Dash to avoid players shots
- Attempt to get behind the player and flank him
- Has enough boost power to travel along the edges in the nav graph
- Has tendency to jump from edifices above and ambush the player

Details:
- Has decent armor
- Has more life than light mechs
- Move slower than light mechs as a whole, but moves much more smartly
- Has a faster attack speed
- Has medium firepower
- Can certain types of elemental bullet types
- Decent Accuracy when the player is boosting
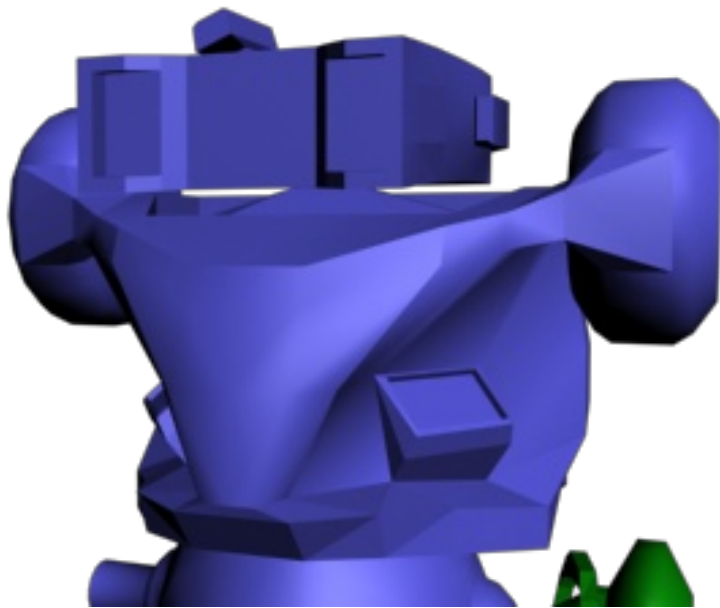
Heavy Mechs

Smart AI:
- Attempts to keep attack range to a medium
  - As the player comes close, it backs up
  - Can communicate with other heavy mechs in the area and let them know the players position
- Attempts to attack from behind protective structures
- Attempts to dodge attacks
- Can't Jump

Details:
- Almost never miss when the player is on the ground.
- Has a hard time shooting a boosting/dashing player though
- High Armor
- High Life
- High firepower
- Can have any type of elemental ammunition
- Move fairly slowly
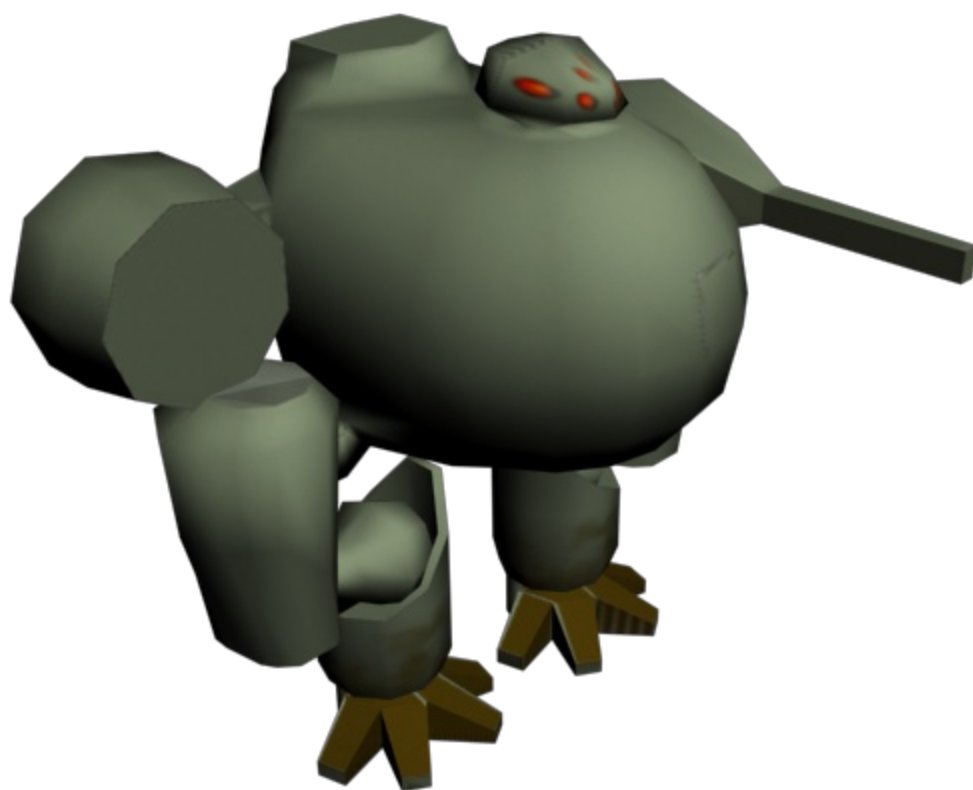
Shaman Mechs

Advanced AI:
- Have a combination of all the best AI traits of the other mechs
- Dash, Dodge, Jump, Hide to avoid players attacks
- Attacks in packs
- Attempts to triangulate themselves around the player (if more than 1 in the same area)

Details:
- These mechs are powerful variations of the other three mechs.
- High Speed
- Highest Defense
- Highest attack power
- Can use any type of firepower (randomly assigned)
- Extremely high accuracy, regardless of player in air or ground
- High Life

Navigation Map

When mechs are close to the player they use reactive AI to move around and dodge. For higher level navigation they use a navigation graph that contains edges and nodes.

Nodes: Nodes have a position and radius. The radius determines how close mechs have to be to the node before they are considered to have arrived at the node.

Edges: Edges connect nodes. Each has a weight dependent on the distance between the nodes it connects. There is also a weight that increases by a small amount for each mech currently using this edge to reach the player. This will cause mechs to take different paths simulating flanking behavior. Certain edges can only be traversed by the medium mech's jump ability.

Appendix A (In-Game Dialog)

Intro Cut Scene Dialog

"The year is 2592, the MFS is introduced. Times are peaceful for now. Kane is a war hero trying to return to a normal life, searching for geothermal power sources. His destiny is different. "

Level 0 Dialog and Walkthrough

Walkthrough Dialog:

The level starts as Kane's mech is starting up. The various gauges come to life and the mech makes mechanical noises. Kerner's mech is standing in front of Kane.

Kerner says "*Alright Kane, I know a war hero like yourself isn't used to this civvy tech. So take a little time to reacquaint yourself with the controls and then I'll take you down*."

A text box appears explaining movement controls.

When the player presses a movement button Kerner continues, *"Alright looks like you got it. Follow me."*

Kerner walks into a tunnel to the left. A text box appears explaining how to aim the camera.

As the player follows Kerner down the tunnel he explains further, *"We found a heavy ore deposit down here, we've been trying to work around it but if we want to keep surveying for geothermal energy sources we'll have to blow it eventually. That's what you're here for."*

Kerner and Kane reach the end of the tunnel. A large wall of ore is directly in front of them.

Kerner says *"Alright time to heat up your jump jets, we're going up."*

Kerner's mech boosts up into the tunnel and lands on a ledge and waits for Kane. A text box appears explaining how to use jump jets.

When the player successfully lands on the ledge Kerner continues, *"Alright, now it's just a straight shot to the excavation area. Let's make it quick Courtney's first birthday is today"*

Kerner dashes down the tunnel. A text box pops up explaining how to use dash. There are some ore deposits along the way that the player must jump over.

The player arrives at the end of the tunnel Kerner says *"Strange, looks like this tunnel collapsed again, we've been getting strange seismic activity around here. Don't worry Kane, just punch a hole in it with your mining laser."*

A text box appears explaining how to use primary weapons. The player uses the mining laser on the rock wall it collapses revealing a small chamber with a hard ore deposit in one of the walls.

Kerner explains *"Good job Kane. Preliminary scans tell us there's a large chamber on the other side of this ore deposit. It's tough stuff, I've never seen anything like it. But those MHM's should crack it."*

A text box appears explaining how to arm and use secondary weapons. The ore deposit explodes as the player shoots it with his missiles. A large chamber filled with what looks like quartz crystals is revealed.

Kerner says "*Nothing like some Mini-Helcion Missiles in the morning.*"

Cut Scene Dialog 0:

"*A stream of garbled messages comes from Kerner. One final, clear message finally comes through. Kerner informs Kane that it has been 100 years and to meet him in the city.*"

End Level 0

Level 1 Dialog and Walkthrough

Walkthrough Dialog:

The level starts in the same crystal-filled chamber shown at the end of Level 0. Except now there are rocks blocking the exit.

Kane attempts to contact the support team, *"Support. This is Dr. Kane Esperia, There has been an accident at the excavation site. Kerner is missing... Do you read support team?"*

Only static is heard on the other line.

As the player uses his mining laser on the rocks Kerner's voice is heard in the static. *"Courtney turned 10 today... I wi... you were here... ... if only."*

The rocks collapse and the player continues down the tunnel which has caved in many areas.

More messages come through in the static and loop, *"They say I'm crazy... ... you're alive... ... Courtney climbed the cherry tree... ... leg, scared ... hell out of... two eggs ... happy ... year Kane... remember Delta IX? ... research... going well ... more funding ... She's dying Kane ... no father should have to see ... why can't I... ... die"*

As the player reaches the area that Kane and Kerner jumped up a klaxon blares and mechs begin periodically attacking one by one as the player moves down the tunnel.

When the player gets to the large entrance chamber a large swarm of weak mechs attack and a text box appears explaining how to activate the shaman form and its various abilities. The level ends once the player activates Shaman Form and defeats the remaining mechs.

Cut Scene Dialog 1:

Kane is awestruck by the tree. He feels some sort of connection to it. He must travel to the city, it won't be easy, more mechs are coming and they have powers.

End Level 1

Level 2 Dialog and Walkthrough

Walkthrough Dialog:

The player picks up their first probe from Kerner. This is a probe that the player must pick up. The boost is disabled until Kane picks it up.

It decodes a message from Kerner, *"Kane, I hope you receive this probe someday, it contains a temporal decryption code. It will allow you to listen to one of the many messages I've left you over the past 100 years. Yes you heard me right. Something strange happened down there... They're watching me Kane, please come see me and I'll explain more."*

As the player travels through the canyon, enemy mechs jump down off the sides of the cliff to flank the player. Multiple paths can be taken through the canyon but they all converge at the end, with the exception of a few dead ends that contain extra ammunition and more of the audio probes. As the player comes upon the city gates the level ends.

Cut Scene Dialog 2:

"Kane is almost there, the mystery is becoming clearer. He is responsible for the appearance of the tree and thus the shaman powers. Kerner says he can stop them."

End Level 2

Level 3 Dialog and Walkthrough

Walkthrough Dialog:

Level 3 begins with Kane staring through the front gate at the city. As Kane, heads through the gates, many mechs attempt to stop him from reaching Kerners apartment. More probes can be found laid throughout the level. Some buildings can be boosted onto and used as shortcuts to avoid having to use switchbacks. Once Kane has reached the park he is immediately beset by multitudes of mechs. Kane must destroy all the mechs inside the park to reach Kerner's apartment.

Kerner says, *"Kane, it's good to see you are still in good form. Sadly I cannot say the same for myself. Even though the tree keeps me alive I am a hostage to it. It wants to return Mars to the old ways. We must not let this happen, it is our duty to destroy the tree and all those infected with Shaman Powers."*

Kane responds, *"How can we do that? They're all over mars."*

"No, they've come here, to this city, they know what I'm planning and they won't stop until I am dead. I've found an old weapons platform left over from the war. It still works and has enough firepower to destroy the tree and the city."

"You'll kill thousands, Kerner, don't do this. There has to be another way"

"There is no other way. I would have done it already but the tree won't let me. I'm transferring the launch controls to your mech. This is your decision Kane, I can do no more."

A window appears on the HUD that says which button to press to launch the orbital weapon

The exits on both sides of the park have become blocked now that the buildings near it were destroyed by the mechs swarming towards Kane. More and More mechs appear to take now to take Kane down until he finally pushes the button.

Kerner continues to try to convice Kane to push the button but seems to falter the longer Kane takes to press the button.

The level ends when the Kane decides to press the button. If Kane dies before the button is pressed it leads to a game over screen. If Kane presses the button, the game ends with the cut scene 3.

Cut Scene Dialog 3:

No dialogue, just music.
Then credits roll.

End Level 3/End Game

Appendix B (Probes List)

Subject	Date	Level	Content
Strange readings	2592	2	*"Kane, this is Kerner, I don't know if you can hear me. I'm getting strange reading from inside the mines. It seems like the organic material has become active. They won't let anyone in there; they say it will be under quarantine indefinitely."*
Courtney's birthday	2601	2	*"Courtney turned 10 today. I wish you were here Kane. If only we were more careful this might have never happened. People have begun acting strangely. I'm feeling pretty strange myself these days."*
Shaman Powers	2601	2	*"Certain individuals have gained what can only be described as magical powers. They seem shamanistic in nature, releasing ancient spirits of animals that some believe once lived on Mars. This must have some connection to that organic material."*
Courtney's leg	2602	2	*"Courtney climbed a cherry tree today. She jumped out and broke her leg. Scared the heck out of me. When I asked her why she said she wanted to fly like the shaman engines... *sigh... people don't seem to realize what is going on. The clans are stirring up trouble. They say everyone should have shaman powers and the Martian Free States are wrongfully keeping them from us. It's not true, but people are so suggestible these days."*
Delta IX	2625	2	*"Kane, do you remember Delta IX? It's like that up here now... the worst of the Independence War days. I wish I could help the MFR remnants but I can barely move. I've never seen the powers manifest in this way... curious."*
I'm still looking	2653	2	*"It's been a while since I sent you a message, but I'm still looking for you Kane. They say I'm crazy but I know you're alive. I don't know how, I just do. I believe you're in some kind of temporal stasis. I've been trying to get more funding for research on the tree and the mines, but the clans are in control now. They seem disinterested in any sort of research into shaman powers. It's insane."*
Happy new year	2670	3	*"Happy New Year, Kane. My research has been going well. I've picked up some hacking tools and have pulled data from the clan instruments in the quarantine zone. I have a feeling the tree is causing all this, but I can't prove it yet."*
Why can't I age?	2690	3	*"It's Courtney, She's dying Kane. No father should have to see their daughter enter old age and die before them. The tree is keeping me alive... I'm sure of it now. Why can't I just die...?"*
It's the tree	2691	3	*"I've made a breakthrough. The tree is definitely the source of these shaman powers. If things are going to go back to the way they were the tree must be destroyed, but will it be enough?"*
Temporal phenomenon	2691	2	*"The data from the crystal chamber is conclusive. You're trapped in a temporal stasis. This means you won't age. Unfortunately this also means the messages I sent you will be undecipherable. However, there may be a way to decrypt them. According to my calculations the temporal field is degrading. Perhaps I'll see you soon and we can talk in person."*
Probes	2693	2	*"Kane, I hope you receive this probe someday, it contains a temporal decryption code. It will allow you to listen to one of the many messages I've left you over the past 100 years. Yes you heard me right. Something strange happened down there... They're watching me Kane, please come see me and I'll explain more."*

Appendix C (Weapons Tables)

Primary

Name	Damage	Range	Rate	Effect	Ammo Type
Mining Laser	5	Medium	High	Hold Down: Continuous Firing Overheats after 10s	Unlimited
Plasma Cannon	7 – 20	Long	Medium-Low	Hold Down: Charge	Energy
Repeater	15	Medium	Very High	'Rattles' some opponents, stunning them	Bullet
Spread Cannon	30	Short	Medium	Shoots a wide spread of bullets Can push back enemies	Bullet
Hyper-Kinetic Rifle (HKR)	100	Long	Low	Deals radiation damage, damage over time	Radioactive

Secondary

Name	Damage	Range	Rate	Effect	Ammo Type
MHM Battery (Mini-Helcion Missile)	50 ea.	Long	High	Low range splash damage	Explosive
Dark Energy Matter Compactor (DEMC)	initial 30 – 100 collapse 200	Medium	Very Low	Hold Down: Damage and Effected Radius increase over time. Critical Mass: The field collapses causing area of effect damage.	Dark Energy
Heilos Rocket	150	Long	Medium	Large area of effect damage Fallout: leaves behind an irradiated area that causes damage over time	Explosive and Radioactive

Appendix D (Items Table)

Name	Effect	Amount Restored
Wrench	Restores health to the player (does not increase above player's maximum health)	25 %
Soul Orb	Restores Shaman Power energy bar (does not increase above player's maximum Shaman Energy)	25 %
Rounds	Add standard bullet type ammo to the player's weapon*	Adds 75
Plasma Energy	Adds energy-type ammo to the player's weapon *	Adds 75
Explosive Ore	Adds explosive-type ammo to the player's weapon*	Adds 75
Graviton Pack	Adds dark energy-type ammo to the player's weapon*	Adds 75
Irradiated Ore	Adds radioactive-type ammo*	Adds 75

*These ammo types are defined under [game mechanics](#)