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Design Document v2.0



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Design History

Version 2.00	Final Publish
Version 1.95	Group edits for Final Version (Minor grammar and screenshot updates)
Version 1.90	Updated to reflect final version of Curvature game. Updated Features, UI and Menu Section, Competitive Analysis
Version 1.80	Document updated after scope cuts were agreed on
Version 1.70	Document moved from Wiki to Word Document, formatted
Version 1.60	Mark-up incorporated into document, grammatical errors, clarification on features
Version 1.50	First Draft Complete, open for mark-up.
Version 1.40	Additions to Object list, Feature Details, minor edits
Version 1.30	Additions from meeting notes, Skill Matrix
Version 1.20	Updated FAQ, Philosophy, High Concept, Title and X-Statement
Version 1.10	Added / Updated: Characters, Single-Player Walk-Through, Camera, Controls, Victory Conditions, Title, X
Version 1.00	Template

Game Overview

Title

Curvature

X-Statement

"What goes up, must come down!"

High Concept

Curvature is a third person action platform built using the Unreal Engine 3. You play as Bella, a teen-aged girl capable of encapsulating herself in a spherical energy field. This field can either become extremely heavy or very light. Using these energy fields to build speed and momentum, she must roll and soar her way through a world of curves to reactivate a failing power-station, saving the people of High-grid.

Philosophy

A Simple Rule Set Will Provide Complex Game Play

At its core, Curvature is about allowing the player to change their gravity in order to gain speed or altitude in a curved world. A simple mechanic that allows the player to quickly learn a skill-set and adapt it many different ways to solve challenges set-up in our level design, and laid out in our achievements. It is the goal of the designers to have a game that is easy to learn, and difficult to master.

A Unified Package - The World, The Lore And The Mechanics

We strive to create a game that will have a complete and unified package and singular experience, from its lore to its art, through to the game play and the mechanics. Getting members from all specialties within the team to contribute to each feature lets us examine each feature from all angles.

Common Questions

What Is The Game

Curvature is a, physics based action-platform game that challenges the player to change states in order to overcome obstacles in a fast paced, multi-level environment. The player can choose between a heavy field, light field or human form, as they roll and soar through the game world.

Who Do I Control?

You control Bella, a young woman that's been chosen to be the next bearer of the Relative Field Device (RDF).

What Are The Short/Med/Long Term Goals?

Short Term Goals

Completing Current Obstacle, Collecting Energy Pins and gaining Achievements

Med Term Goals

Get to Power Station, Repair Power Station, Escape Power Station

Long Term Goals

Save High-Grid, Beat the Game

What's High Grid?

High-Grid is the setting for Curvature. It's a large city that's been contained within a force field to protect its inhabitants from a Bio Agent contaminant released into the atmosphere at the end of a major war that ravaged their planet. The protective force field is run by a number of power stations around High Grid - and the player is the person responsible for keeping those power stations operating.

What Are The Key Locations?

The three major areas of the game are the City Streets, the Power Station and the Maintenance Tunnels between these two area.

What Happens If Those Power Stations Stop Working?

If a Power Station goes down the force field over the city runs out of power, and the contaminants will destroy the city's population.

What Is The Main Driving Goal Of The Player?

The main goal is to save the city of High-grid by re-activating the Power Station.

Feature Set

Feature Highlights

Light Field

The Light Field can be placed on Bella. While in the light field she becomes very light, like a feather, and floats around, bouncing off of objects and surfaces.

Heavy Field

The Heavy Field can also be placed on Bella. While in the heavy field she becomes very heavy like a giant bowling ball, capable of crashing through obstacles, and building up a lot of speed.

Bella Form

While in neither field the player controls Bella. She can run/walk, jump and has the most control (in the air and on the ground) as well as the ability to active to special boosts, a speed boost when switching to heavy, and a jump boost when switching to light.

Feature Details

Light Field

Application

The Light Field is applied by pulling, and holding the left Trigger, see controls section for detailed controls. The player can jump in the Light field by pressing A.

Effect

The Light Field can be applied to Bella and will cause her to become encapsulated in the light field, making her feather weighted. The light field is easily affected by forces in the environment, such as air vents or moving objects. It floats slowly towards the ground, and will bounce off virtually any surface knocking back anything not held down. This effect takes into consideration the original vector of movement on the point of bubbling. This allows for the player to create a super-jump like effect allowing them to jump extreme heights.

Special

- Light field can Jump and Bounce. The Jump is available to the player whenever they are on the ground.
- Gravity's effect will be greatly reduced (allowing rapid travel upwards, and only slow decent)
- If falling quickly the light field will apply a "brake" to the downward velocity of the player

Limitation

- Not available in certain areas such as small spaces.

Heavy Field

Application

The Heavy Field is applied by pulling and holding in the right Trigger, see controls section for more detail. The Heavy field can speed Boost by pressing A.

Effect

The player can apply the heavy effect to Bella which will make her act in as if she is extremely heavy, rolling around like a bowling ball. It can build up very high velocity, especially when travelling downhill. It's high mass allows it to break through some surfaces (such as glass) and keeps it from bouncing very high.

Special

- Heavy field has a direction Speed boost. A set force will be applied for up to 1.5 seconds in the direction the player is pressing on the Left Control Stick. The boost will be available at most once every 2 seconds.

Limitation

- Not available in certain areas such as small spaces

Bella Form

Application

The player is in Bella form when they aren't in either of the two fields.

Effect

Bella form has the most control of the 3 forms. She can quickly stop and change directions, both on the ground and in the air. She is the only form that is vulnerable to damage, caused by falling and hitting the ground too hard. The player can also activate two special boost while switch from Bella form to either of the Fields, a speed boost into heavy, and a jump boost into light.

Special

- Vulnerable
- Control
- If in Bella form for at least 1 second, get speed boost when activating heavy, and a jump boost when activating light.

Limitation

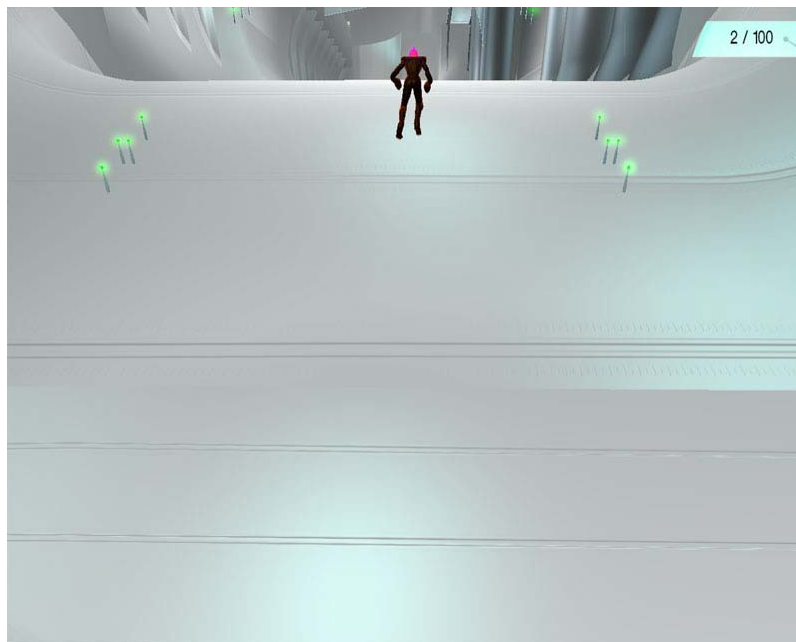
- Not available in certain areas such as small spaces

See "Controls" for more detail.

Reward / Achievement System

The reward system in Curvature is in three categories: Learn, Explore and Collect. Our pickups are called Energy Pins, they are placed throughout High-Grid to act as both bread crumbs to lead the player, and collectables for achievements. A counter will track the number of Pins hit, and the player will get an achievement for hitting 1/3, 2/3, and all of the Pins.

- **Our Savior:** Reactivate the Power-station
- **4 Minute Mile:** Reactivate the Power-station in under 4 minutes
- **If it's Worth Doing:** Reactivate the Power-station in over 10 minutes
- **Because it was There:** Reach the Highest Point in the Map
- **Last One Out's a Rotten Egg:** Escape the Power-station
- **Greased Lightning:** Escape the Power-station in less than 30 seconds
- **Singed Tail Feathers:** Escape the Power-station with less than 10 seconds remaining
- **Pedal to the Metal:** Reach High Speed
- **Gone Plaid:** Reach Max Speed
- **I Can See My House From Here:** Reached 1500' from the ground
- **A Long Way Down:** Fall 750' without touching the ground
- **Can't Touch This:** Stay Airborne for 10 Seconds
- **Are We There Yet?:** Stay Airborne for 20 Seconds
- **No Pain, No Gain:** Almost Die from Fall Damage
- **You Can Fly, You Can Fly, You Can Fly:** Fly 1500' without touching the ground
- **Going, Going, Gone:** Fly 3000' without touching the ground
- **It's A Bird, It's A Plane:** Fly 1000' as Bella with no Field Active
- **This Wasn't in the Brochure:** Find the Secret Area
- **Got It With the Door:** Knock down 1/3 of the energy pins
- **Hood Ornament in a Second:** Knock down 2/3 of the energy pins
- **Clear-cut:** Knock down All of the energy pins
- **Once Is Never Enough:** Successfully Escape the Power-station Twice



Energy Pin Collectables

Skill Matrix

The Skill Matrix in Curvature is the order in which game mechanics are taught, when and where. The level design diagram will show where the Skill Matrix is applied.

1. Use Heavy field and Light field
2. Use boost and jump
3. Use Smash
4. Use Ramps / Half-pipes
5. Use Vents

Spawn Points

Progressive spawn points will be placed at the beginning of each area, a trigger will active the current spawn point and deactivate the previous one. Progressive spawn points will be placed throughout the game at major challenges set forth for the player.

Single-Player Game

Single Player Walk Through

The game takes place from the City Streets to the Power Station.

The City Streets

Just outside the Founder's building, Magnus contacts Bella through the Device to help her learn basic skills.

Then Bella begins her journey through the City to the failing Power Station. On Bella's journey the Player learns all of her abilities as she navigates the through the level.

Bella reaches the Power Station entrance at the end of the level.

The Power Station

Bella reaches the Power Station and moves into the main Core. Bella re-activates the Station (Reward: Cut-Scene to show Power Station powering up) and escapes through a Tunnel before it charges. At the end of the Tunnel the player is given the final cut scene of the game, and is then returned to the beginning of the game, which allows the player to play through recursively.

Story

ACT I

- Tamer is brought back to the Founder's Building by Magnus's people.
- Magnus explains to Bella her mission to repair the power station, to preserve the shield.
- Then gives her the device very basic instructions on how to use it, and sends her out telling her he will give her more instructions along the way.

(GAME-PLAY STARTS HERE)

ACT II

- Bella travels out to the power station, using the powers of the device and her quick wits.
- Bella arrives at the power station, and with assistance from Magnus over the com she manages to repair it.

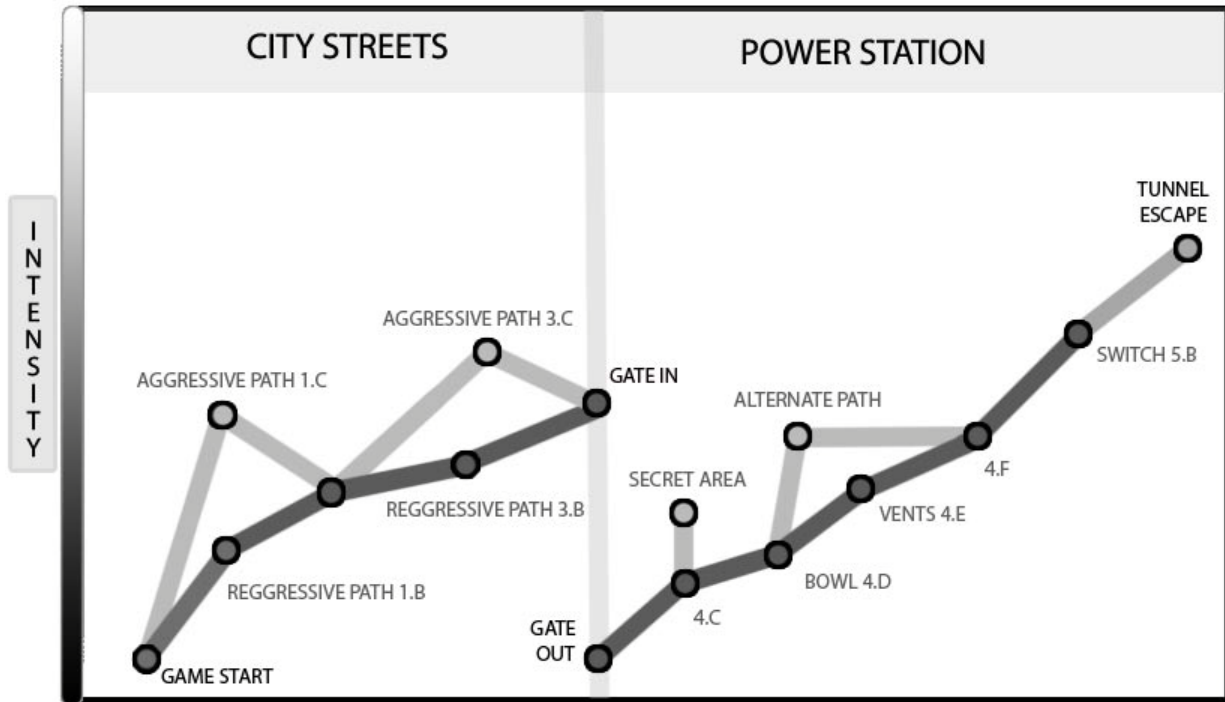
ACT III

- Bella escapes the charging Power Station through a maintenance tunnel.
- After reaching the end, the cinematic shows the Station Powering on, lighting up the city.
- Bella continues exploring the city to get the remaining exploration achievements.

(GAME-PLAY ENDS HERE)

Refer to the Appendix for Further back-story of world and major characters

Beat Chart

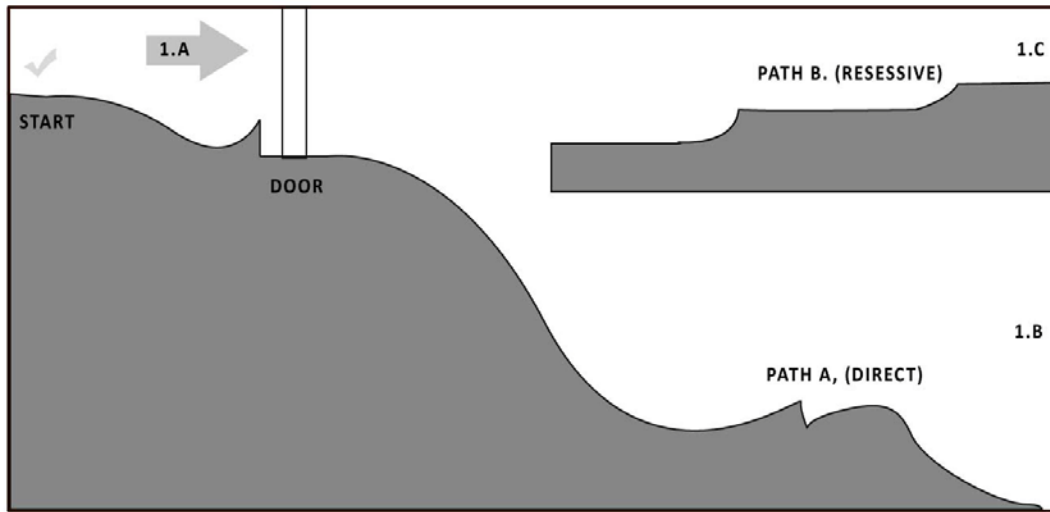


City Streets || Power Station – Skill Matrix

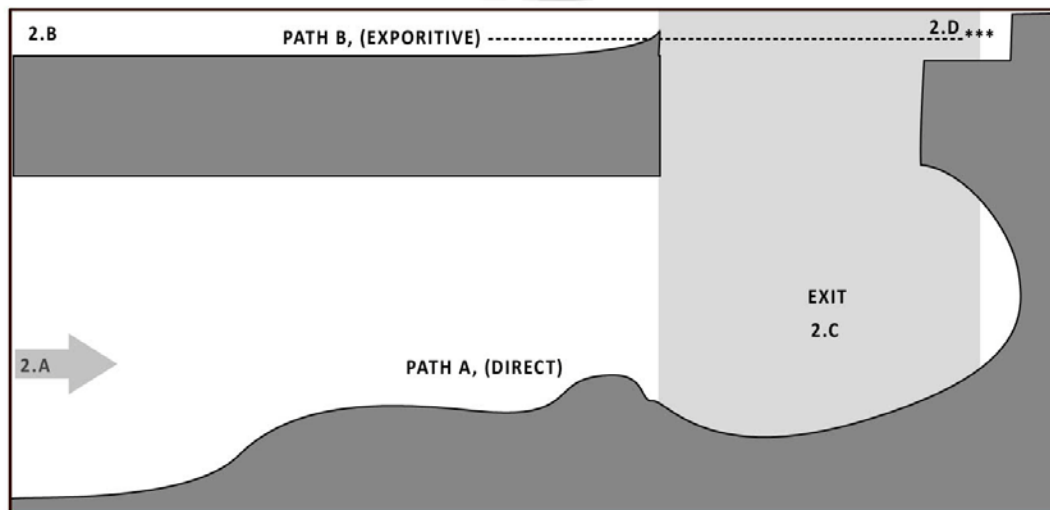
1. Use Heavy field and Light field
2. Use boost and jump
3. Use Smash
4. Use Ramps / Half-pipes
5. Use Vents

Level diagrams below

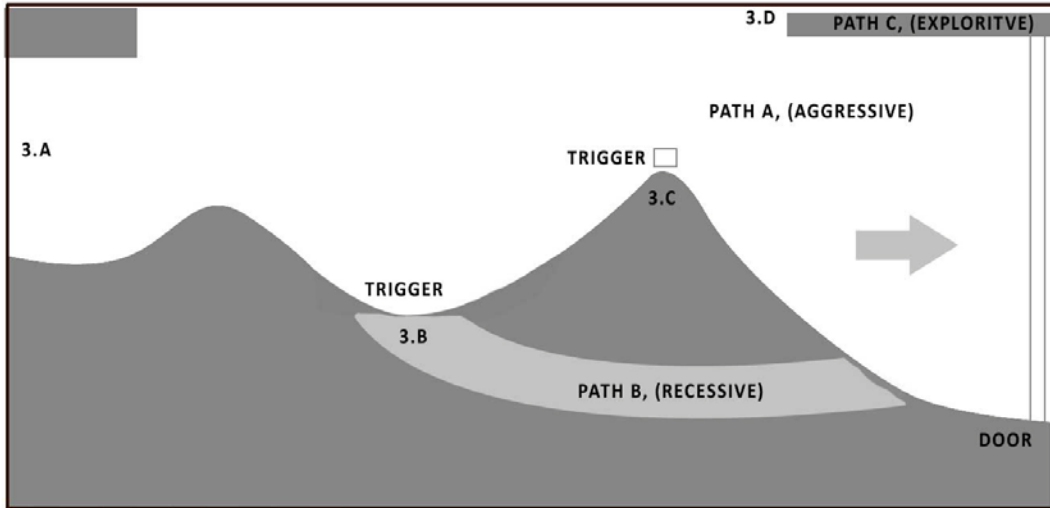
Level 1: City Streets



- 1.A -- Level start. Player utilizes Heavy and Light field (Skill Matrix 1&2)
- 1.B -- The direct path to 2.A (next diagram)
- 1.C -- Recessive player path, less direct with the promise of more reward(Higher “shelf” section)

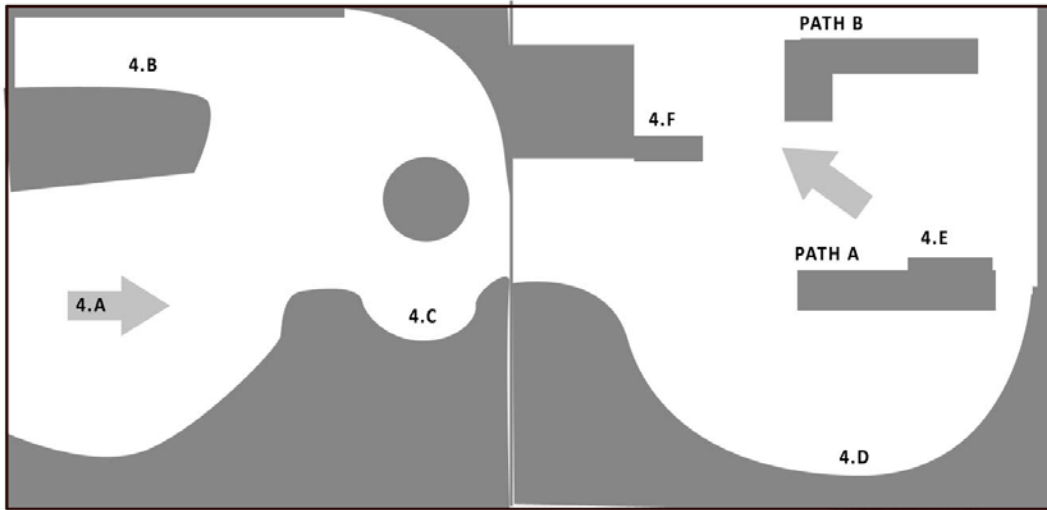


- 2.A -- Direct path from 1.B. It's the fastest route to 3.A
- 2.B -- Leads to “Highest Point” in the level with achievement reward
- 2.C -- Ninety degree left turn to 3.A (next diagram)

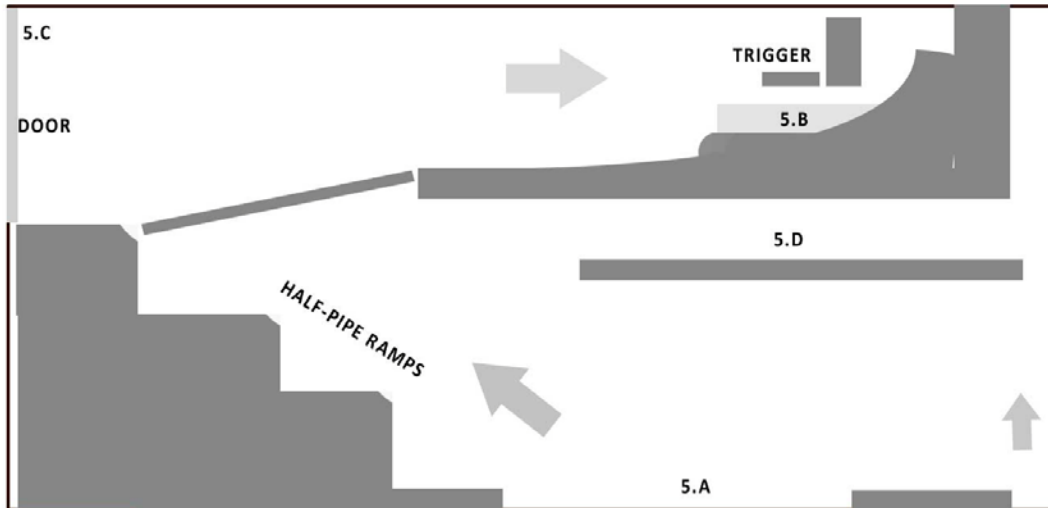


- 3.B -- Recessive path with rewards, less direct but safer
- 3.C -- Aggressive and direct path leads to exit or 3.D
- 3.D -- Explorative path, leads to rewards and exit

Level 2: Power Station



- 4.B -- Secret Area with rewards
- 4.C -- Player learns to build speed and gain height off a ramp.
- 4.D -- Player utilizes speed and height in a harder challenge
 - Path A – Main Path
- 4.E – Player learns Air Vents (Skill Matrix 5)
- 4.F – Player uses speed and Air Vent skills with rewards
 - Path B – Elegant Path with rewards (Expert level path, more direct and faster route)



5.B – Main Goal of the Game – Power Core

Player must reach area

Player must land on the Switch with Heavy field

Success will power on the Station and Open Tunnel access

5.D – Explorative path with rewards

5.C – Door to Maintenance Tunnels – with 60 escape second Timer

Length of Game Play

5- 15 min as an estimate.

Victory Conditions

Completing the major plot points will win the game.

- Activate Power Station – Understanding of game systems necessary
- Escape Power Station – 60 second Timer
- Get Achievements – Mastery of game systems needed
- Save High-grid – Complete and explore all of Curvature

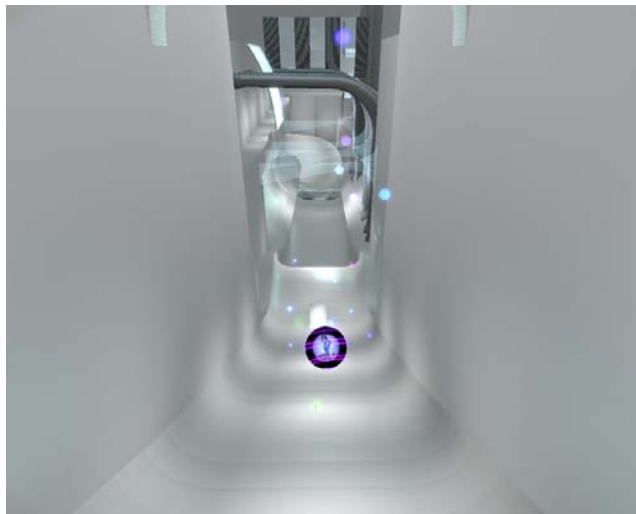
Camera Overview

Curvature uses a 3rd person camera. While in Bella form the camera is hard attached to the head of your character Bella so when she turns her head the view will always follow where she is looking. The camera is positioned ten feet behind Bella and three feet above her. The camera will move closer to Bella if the camera's position collides with world geometry or meshes. While in either of the fields, the camera is a follow cam allowing it to track the player's movement in both the horizontal and vertical planes. However the vertical plane is limited in both rate of change and total range of motion preventing the follow cam from ever raising or lowering the player's view past 45° from flat.



Bella camera

The camera also pulls back according to player speed. The faster the player is moving, the further the camera will pull back from the player (in both light and heavy field).



Field camera

Controls

Xbox Controller Detail



Xbox 360 controller with control callouts.

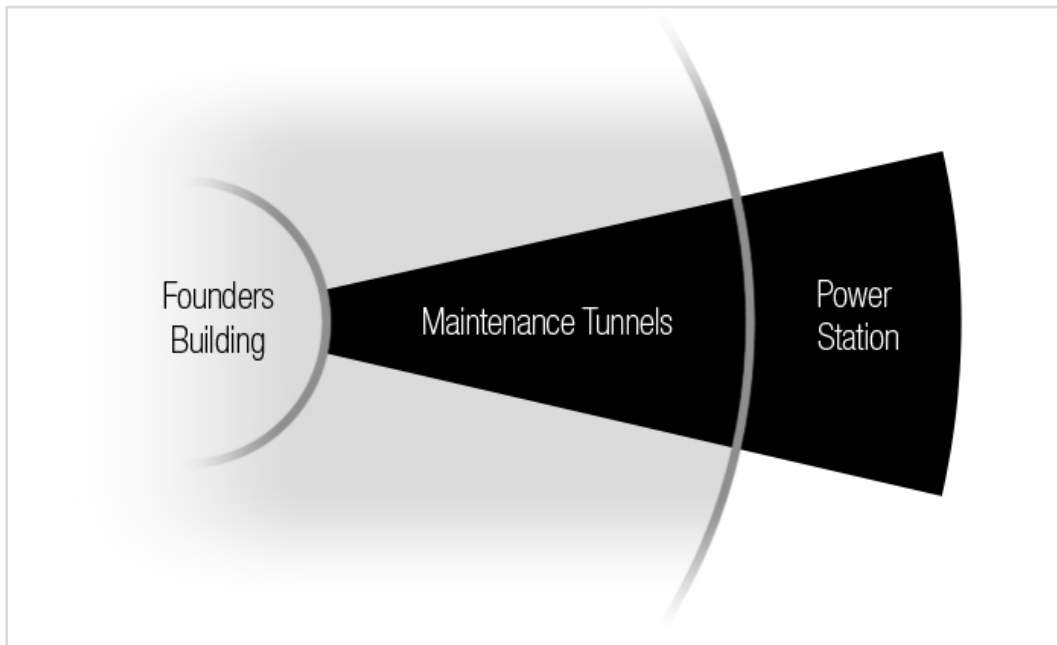
Button	Description	Function
LT	Left Trigger	Light Field
RT	Right Trigger	Heavy Field
LStick	Left Joystick	Movement
RStick	Right Joystick	Camera Look
A	Jump/Boost	Special

The Game World

The World Overview

World Feature

World boundaries are the limits of the bubble, and the walls of the city street buildings.



World Layout Detail

Overview of the city, City Streets > Maintenance Tunnels > Power Station

Key Locations

City Streets

Cannon-like allies that serve as travel path-ways through the city of High-Grid.

The Maintenance Tunnels

Winding tubes used for travel in a field from the Streets to the Power Station.

The Power Station

It is a large complex that the player must navigate through to reach the main switch and re-activate the city's power.

Game Characters

Protagonist

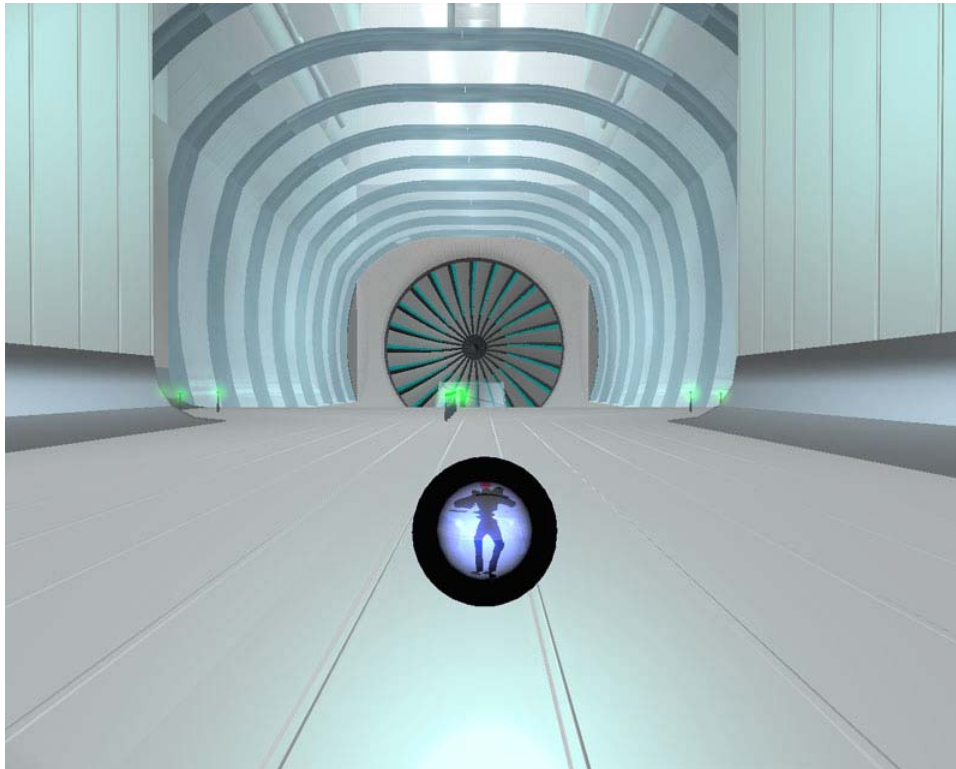
- Name: Bella
- Appearance: A young girl, approximately fifteen years of age.
- Title: The Marked one (the Bearer of the Device)
- Attributes: Mortal, natural

Mentor

- Name: Magnus
- Appearance: Half-man - half-machine, wise, Regal, elf king-like, old but ageless
- Title: Founder (the inventor of Device)
- Attributes: Bio-mechanical, a powerful Founder. Strong, Medium speed, Armored.
- Communicates to Bella through a radio channel.

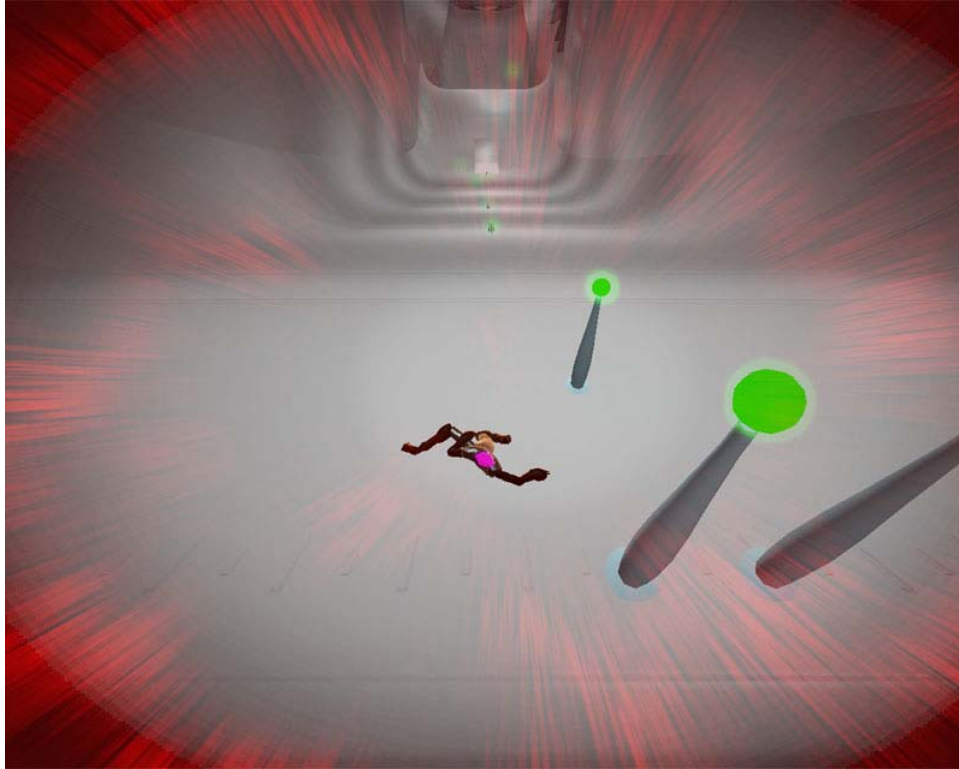
User Interface

The UI will be clean of exposed game data.



Health

When the player is impacted by something that damages them, the screen will display a momentary vignette to indicate to the player that they've received damage.



Health Indicator (Player)

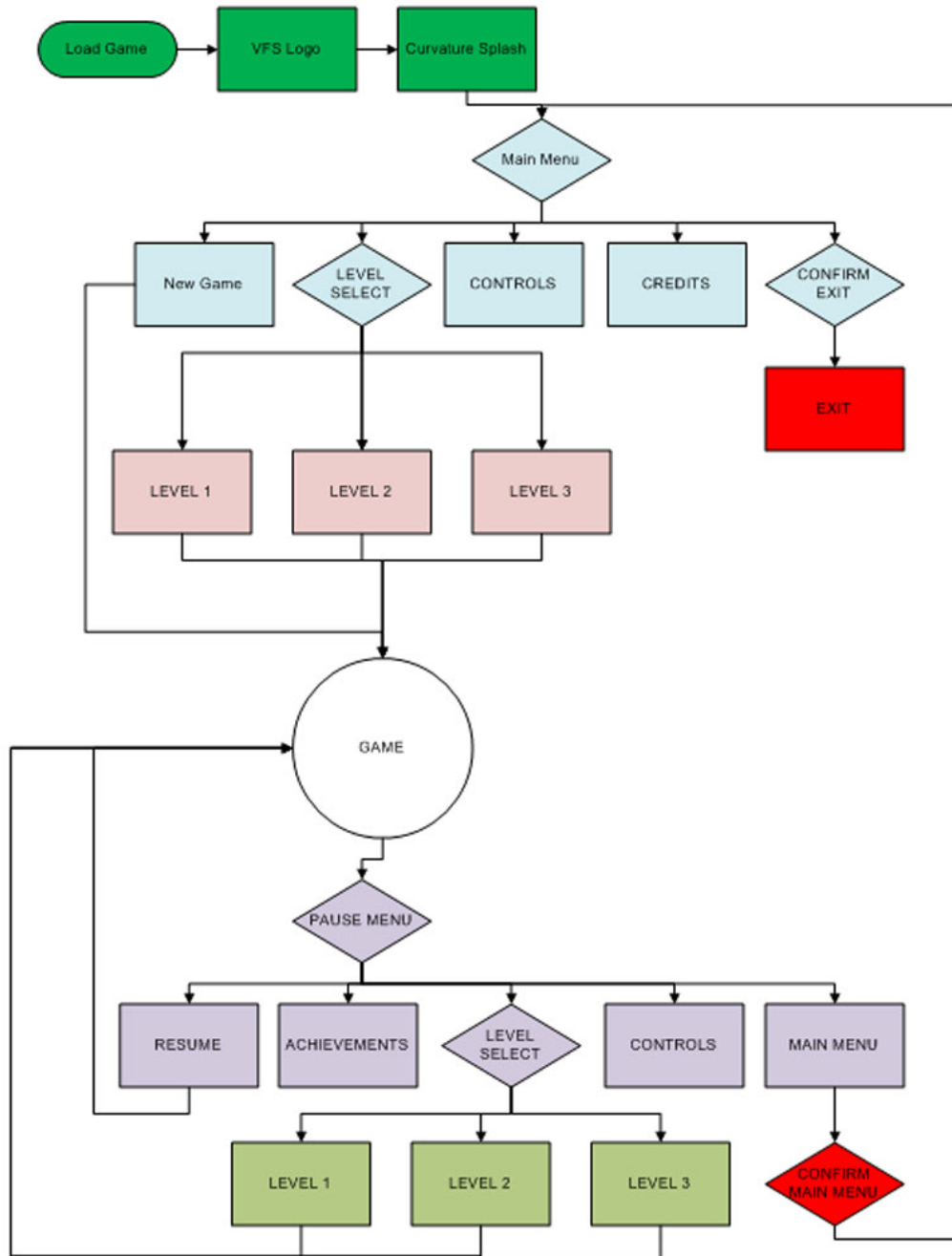
Magnus Dialogue – UI Text

Text dialogue will appear that matches what Magnus says to the player during the game. This will be player tooltips and player plot devices to push the player through the game.



Game Interface - Menus

Screen Flow Diagram



Menu Screens



Main Menu Screen



Continue Game Screen



Options Screen



Achievements Screen



Top Three Achievements Screen



Quit Game Screen



Credits Screen



Load Screen

Sound Design

The sound design for Curvature is detailed externally in the Sound Design Document.

Target Market

Teen

Titles rated T (Teen) have content that may be suitable for ages 13 and older. Titles in this category may contain violence, suggestive themes, crude humour, minimal blood, simulated gambling, and/or infrequent use of strong language.

Appendices

“Competitive Analysis” Appendix

Super Monkey Ball



Super Monkey Ball

Super Monkey Ball:

In Amusement Vision's super monkey ball you play as a monkey in a sphere, something like a hamster wheel. The goal of the game is to roll around on platforms and navigate your monkey through a goal at the end.

Why Super Monkey Ball?

The rolling mechanic of the ball is very similar to the interaction the player has with the heavy field. Rolling around the level falling off ledges and picking up momentum while traveling downhill is a key part of both Curvature and Super Monkey Ball

Marble Madness



Marble Madness

Marble Madness:

Atari's Marble Madness is essentially about keeping your balance while navigating through the levels of tightrope like platforms. The player must roll around in a sphere attempting to get to the goal at the end of the level.

Why Marble Madness?

Again the rolling mechanic from Marble Madness can easily be compared to the experience the player would receive using the heavy field to roll around the level. The balancing act can be compared to some of the difficult collectable placements throughout the level. Some of the platforms require a good amount of driving skill if the player wants a chance to stay planted on top.

Skate 2



Skate 2

Skate 2:

In EA's latest skateboarding game, Skate 2 the player is given intricate skate parks to pull off tricks on by allowing them to pick up speed and blast off a kicker or half-pipe. The player is able to experience some vertigo scenarios while gaining mass amounts of air.

Why Skate 2?

The ramps and curves of the skate park greatly mimic the world created for curvature. This was deliberate to aid in creating the vertigo experiences for the player.

Curvature

Our Game:

Curvature features a device envelopes the player into a field of energy that makes them Heavy and Fast or Light and Bouncy. The player is challenged choose what state to assume in order to navigate through a curved world in order to gain achievements and game goals.

Why don't I just one of the games listed?

Curvature's foundation starts with a simple mechanic with good depth. The three forms, Light, Heavy, and Bella, allow for a greater level of depth, due to the interaction between forms, when compared to the single state mechanics in all the three games detailed above. Skate 2 sits firmly near the realism side of things, this accomplishes their goal of attempting to simulate the experience of skateboarding as closely as possible, however this does limit what the player will expect or accept within their game. Curvature is more fantastic than Skate, this allows us to push the vertigo experience letting the player fly higher and roll faster than is realistic.

Super Monkey Ball is a completely fantastic experience with a very cartoony art style. This helps the game to target less mature players, and the simplicity of their mechanic further supports this target market. While Curvature is fantastic, it is also realistic within its own world, this makes the game more appealing to a more mature target market. Giving Curvature a slightly more complicated primary mechanic (three states) targets that slightly older market as well. We have also taken steps to keep the base mechanic reasonably simple to pick-up and understand (simple controls and similar applications of abilities between forms) to keep it accessible to a younger audience, while avoiding the “cartoony” style that can repel some potential more mature players.

Marble Madness has a very similar mechanic to Super Monkey Ball and Curvature. Likely the simplest application of the mechanic, makes it the easiest to pick-up and play, however the same simplicity of mechanic is limiting to the player in the ways it can be successfully applied to solve a “puzzle”. Curvature’s three state system allows for one “puzzle” to be solved in multiple different ways, some of which may not have been even intended in the original level design plan. This will have to be monitored closely by the level design team, but provides potential for replay, and lots of player creativity and choice within the game.

“Research” Appendix

Over all character art style is defined similar to: <http://www.vimeo.com/790881>

“Story” Appendix

The world flourished as never before. Fusion had been harnessed and wrought into forms small enough for almost any device; providing a clean and nearly unlimited power source. Breakthroughs in brain and nerve research combined with advanced intuitive AI technology brought forth the first direct neural interface. A machine controlled completely through a surgically implanted connection to the brain. This soon led to medical technology allowing people to replace lost limbs with mechanical working replacements. With only, relatively, minimal rehabilitation they could regain full, even improved, ability, which in turn led to healthy limbs being removed to be replaced, and even organs being “upgraded”. Implants became common within many technology sectors as well, providing interface with computers unmatched by the clumsy human hands.

The City of High-grid was the center for science and technology, a city full of marvels even amongst a society where replacing your arms is a no more major an operation than having your appendix out. Its Five Renown Universities attracted the best and brightest young minds to learn, while their professors pushed the boundaries of science and innovation further and further. It grew to such affluence that the leaders of the city, the founders of the five Universities, decided that they should no longer be restricted by or associated with any individual Country. Thus the Independent Enclave of High-grid was formed, with the five university founders as a ruling council.

For fifty years High-grid held itself above the squabbling diplomacies of the other Countries, during this time it flourished, growing far faster and to far greater heights than any had dreamed. But for all their technologies, and sciences, all their logic and rational response, they had no defense against the petty short sightedness of the other countries. The reasons never change: money, land, religion or just plain old

good fashioned crazy. It really didn't matter to those caught within it, all they wanted was a safe place to hide, and wait out their respective leaders, respective insanities. High-grid sent its best and brightest to: negotiate, mediate, arbitrate, bargain, liaison, anything to bring forth a peaceful resolution. But just as the reasons never change, neither do those in power learn to listen to rational argument against conflict. Until finally, whether intentionally or not, metal strikes metal, sparks fly and land in the, oh so dry, tinder that roars brightly and quickly to open flame.

The War raged for years, and it did not take long before no one remembered who fired the first shot, for a fact no one remembered where it was even fired, but each side knew it was the other's fault. High-grid stayed neutral, officially. Unofficially there was no neutral in the war. For the first time ever High-grid began to see division. People took sides, any left High-grid all together. Some to support one side or the other, some in vain attempts to bring a close to hostilities, few ever returned.

Then the refugees began to arrive. At first only a trickle, the Founders, as the ruling council had become commonly known, were divided on what to do with them. Magnus and 2 others supported allowing the refugees in; Lodi and one other supported refusing them entry. So the refugees were allowed to stay. Soon more and more came, and the trickle became a torrent. High-grid began to experience something else for the first time, poverty. The people of High-grid did their best to provide for the refugees, but the city was not set-up to deal with this sudden influx of population. They were housed in whatever space could be found around the outskirts of the city. Temporary shelters became permanent residence as the war smoldered on. Food, shelter and other basic needs of the refugees began to suffer, and so the Refugees began trying to provide more and more for themselves. Some had skills with which they could provide an income, many did not. Many of the areas containing refugees became little more than slums. As the years of war passed, those involved became more and more desperate for a victory. The Founders began to worry, if they were starting to encounter troubles that they couldn't resolve how desperate must the rest of the world be? Again the Founders were split, Magnus and two were worried about how they could help the others; but Lodi and one other were becoming increasingly paranoid, the others, they said, were likely to come help themselves very soon. However in spite of Lodi's attempts to gain support for a more defensive position, High-grid again sent forth its negotiators and mediators to try a broker at least a short peace. Many hailed this as a great day for High-grid, but others were fearful. Lodi and her supporters began work to protect themselves. Lodi developed and built the crown jewel of defense plans, The Gravity Band Projection Shield. This shield created a dome of powerful and rapidly changing gravitational forces, within this band nothing known can survive for even a fraction of a second. It required special generator/focusing stations to be built around the outer rim of the area to be protected, and a master generator/projector in the center. But once completed and activated it would be impenetrable providing none of the stations went down. However should a single station go down a full half of the shield would be lost.

Lodi and her supporters were scorned by many of Magnus's supporters, though never by Magnus himself. However her shield was completed ahead of schedule fully operational in only eighteen months. More than enough time for it to become very apparent there would be no peaceful solution to the war that still plagued them after more than a decade. The other Founders finally began to accept Lodi position and started their own preparations for the defense of High-grid. It was decided to build a larger version of the shield to surround the entire city. This shield would be based on Lodi's existing shield, which would be able to continue to function even if the main shield went down. Most of the important offices of the Founders were moved within the radius of Lodi's backup shield to preserve themselves in the event of the worst, the Founders still chose to remain at their respective Universities rather than cower within the shield. But only six months into the project the attack came. Lodi demanded emergency powers to deal with the situation, and the other Founders, terrified at the prospect of an actual attack, voted in favor unanimously. Lodi took control with an iron grip, hiding as much of the populace, and especially her military forces, inside the smaller shield around her own university. She attacked the invaders with constant hit and fade strikes; sipping out from behind the shield, destroying a high value target, and then falling back behind the shield before any major forces could be gathered against her. The losses were

almost completely one sided, and it took less than two months before the city had been regained. But the price was high. The city had been a battleground for those two months, and while care had been taken to minimize damage on both sides (the invaders hoping for salvage and plunder, and the defenders just trying to protect their homes), war is indiscriminate in its destruction, and much of the city had been leveled.

After her victory, Lodi was hailed as a savior. She secured her emergency powers so that they could never be taken from her, lest she release them. Then frantic construction on the shield began. Lodi became more and more paranoid, fearing that attack would come at any moment. She began deep research into Cybernetics (replacing biological parts with mechanical) for the purpose of creating the ultimate super soldiers. With these frantic efforts towards defense soon the shield had been completed. Many wanted to raise the shield and reaming safe behind the barrier. But the barrier was impenetrable, both to danger, and to information, one cannot even see through the shield. Lodi was unwilling to become so removed from the rest of the world, they had their shield, they could be invulnerable at will, and there was no need to cower. However, Lodi was already out of contact with the rest of the world. She had no time for tasks other than her research, and her orders, each designed to strengthen the defenses of High-grid. But she failed to realize the desperation which had gripped the planet. War had raged for nearly twenty years, and the war had to end, people were exhausted, economies long since broken and discarded, if the death rates could not be brought down the species would extinguish itself. It was these desperate times that bred the mindset that at all risk, the war must end. While fusion based weapons were known, it was also known that the use of these would cause a chain reaction of events that could only end with the purging of all life above a microbial level. So it was to this same microbial level that was turned to for an answer. Once again, neither side really knew who struck first, but once the door had been opened it was too late to stop on either side. But nothing in the world of biology can ever be completely certain, radiation, a byproduct of the war, from vehicles and weapons alike could not be properly accounted for. On initial release the biological agents functioned exactly as promised, but soon mutation became all too evident. The agents mingled together and with the radiation, produced was something new, something far more powerful than its erstwhile creators had ever intended.

Death came for them, it made no distinction between rich, or poor; powerful, or powerless; old or young. Death: at first in the thousands, then the millions, and finally the billions. High-grid was terrified, but Lodi reacted without hesitation, as soon as the course of this war became clear as many supplies and people as possible were gathered within the protective radius of the shield, collective at last view of their lush green world was taken. It was possible to see some of the horrible brown patches of death, that spread from the impacts of the missiles used to deliver the weapon; then the shield was raised. Complete isolation, the citizens of High-grid were not prepared for what this would mean.

For years there were endless difficulties, food and water were scarce and had to be gathered inside the shield, air was needed as well. But Lodi's leadership was strong even in this dark time, she had trees planted, as much room as possible was cleared for food to be grown, and dietary supplements were provided to all citizens too keep them healthy. Wells were driven deep under the city to provide water, which was thoroughly purified before being passed on to the people.

The shield had been raised for nearly a hundred years. At long last the people of High-grid were finally returning to everyday life and concerns; no longer constantly in fear of death from outside, or within. There were even improvements to their lives being made, as Lodi's long years of research into cybernetics were bearing wondrous fruit. The average lifespan had grown to highs undreamed, with mechanical replacement for virtually any part of the human body that might fail. Lodi herself was over 150 years old, with replacements to keep her looking and functioning as one no more than forty. But this comfort brought out laziness in the people, and this would lead to a great catastrophe. It was a routine procedure, the fusion generators that powered the shield needed to be purged. Superheated plasma was funneled out of the heart of the reaction and focused into the electromagnetic shield that contained the heart of the reactor. It was done several times a day, each time a weakness in the shield is detected. But there is

no protection from operator error. The exact situation that led to the overload is unknown, but the automatic fail safes kicked in, and the generator shut down. There were systems in place to deal with this eventuality, batteries would maintain that portion of the shield for long enough to evacuate, however it would take too long to restart the reactor itself.

All things considered, for an emergency evacuation on such a massive scale it was incredibly well executed. Some panic, though nothing widespread, several injuries, and a few deaths. But these accounted for less than a percentage point of those evacuated. But the evacuation was the smallest of High-grid's problems. They had lost half of their safe zone, they no longer had sufficient room to house their population, not to mention: food, water, air and all the other needs of any human. But there wasn't as much worry as there should have been. Much of the population were sure that a solution could be found, and that Lodi would be the one to find it. Lodi had become a protective force for the citizens of High-grid. She had, whether in reality or in appearance, solved all of the major problems facing High-grid since the shield had been activated, and due to this much of the population had come to see her as something akin to a savior or matron protector. So in their time of greatest need they turned again to Lodi expecting to be led to safety. But this time she had no solution for them. They had only so much space, and far too many people. Lodi was forced to make a decision. If 1/3 of the population was removed, they would, just, be able to maintain a stable air and food supply. Lodi took it upon herself to make every single selection personally, forcing herself to choose one out of every three people to die. The long weeks that Lodi took to decide became known as the "Great Decision". It was a process that nearly killed her. Each day she dwindled more and more, shutting herself away deep inside her apartments within the Founder's building, becoming physically weaker, and often ill. The decision dominated all of her time, and so Magnus stepped forward to control the day to day running of High-grid. He was also one of the only contacts Lodi had with the outside world.

Until finally Lodi finished, she called for Magnus to meet her outside the Founder's building in the center of High-grid. She came forth, handed the completed list to Magnus, and then collapsed at his feet. Rushed to the hospital with a massive heart attack, Lodi's heart was completely spent. In emergency surgery at her University's Hospital, Lodi became the first human with a completely cybernetic heart. While Lodi was in the hospital it fell to Magnus to act to the list that he'd been given. Over the course of a week over 95% of those on the list were accounted for, some managed to escape, or hide, but the vast majority were rounded up. Then they were given some basic supplies and tools to help them, though none believed they would live long enough to use them, and sent outside of the shield. Then the shield was closed again, shutting them out completely. This day would be remembered by the citizen of High-grid forever, The Great Decision they call it, and every year on that fateful day they celebrate, and they remember.

She recovered quickly, from her physical wounds, but she wanted nothing to do with leading High-grid, reinstating all of the Founder's original powers, renouncing her own seat on the council. She wished only to be left alone in her labs, and apartments within the Founder's Building. But Magnus would not let her remain this shadow, he visited her regularly. Slowly helping her regain her strength, a full year later she was welcomed back onto the Founders Council. Together the council began working together to rebuild in the aftermath of the Decision. Lodi began advocating cybernetic improvements. They would make people more efficient, require less food and air, and more resistant to damage. She gained support from many in the council, including Magnus. Research began into further and further "augmentation" allowing more and more of the body to be replaced. Magnus and Lodi became close working together and eventually married, and they were happy for a time. But Lodi soon began noticing more and more the failings of those around her. She became more and more paranoid that there could be another catastrophe and she might be forced to decide again. She began pushing her research into cybernetics farther and farther, trying to make people "better". Magnus and many of the council advocated caution, but she berated them for not having "the stomach for it". However they outnumber her on the Founders Council, and Lodi had returned all of their powers making her just another member of the Founders.

The conflict over the “Cybernetics” issue was reaching a head, the two parties nearing blows, just when attempting to discuss the issue with each other. It was then the survivors returned; two of them, a man and a woman, a brother and a sister. They were children, babies, when they were sent out with their parents. They told the story of those sent away in the Decision. All died, some quickly, some slowly. They traveled, they were unsure of exactly how far, it seemed like forever to these two survivors, just babies at the time, many times as long as their entire short lives had been before the journey. Finally stopping in the place they had come to know as home, but by the time they were Sixteen, they were the only ones left. They survived, each only to protect the other, they survived. They were lucky, some trick of genetics had left them immune to the deadly bio agent still active from the war, and finally they had returned to the city. Overcome by curiosity at long last. But they had more disturbing news as well, they said they had seen creatures, large brutish things, hulking, with short sharp claws. They survivors had been forced to flee from them several times.

The survivors terrified the Founders. Their worst fear was that something might strike the curiosity of their people of the fate of the world outside the shield. How long they wondered, would they be willing to hide? The Founders decided they must conceal the return of the two survivors, temporarily setting aside their differences to protect High-grid. But the peace was short lived; Magnus had the survivors cloned, despite Lodi’s objections. Then the survivors were quietly disappeared, along with anyone who could not be absolutely trusted with the secret. Magnus then revealed a device he had built, the Relative Field Generator. He believed it could be used to re-active the power stations around the edge of the lost half of the city, bringing the shield back on-line. He designed the device so that it will only respond to the control of one who has no cybernetics. One of the clones was sent out with the device to attempt the repairs, this was the brother, Tamer; while the other is to be kept for testing into its immunity to the bio-agent, Bella. The Clone was successful, re-establishing the shield, and was heralded upon his success as the Chosen bearer of the Device. Magnus hailed him as the pure protector of them all, because of his total lack of cybernetics. Lodi was furious, she questioned the other clone closely, again coming upon the topic of the brutish creatures seen outside the shield. Intrigued, she secretly sent a small band outside the shield, to investigate. They were given full biological suits to protect them, and were heavily armed. They returned a week later with a captured giant; a hulking brute, massively powerful, with short sharp claws, but a primitive simple mind. They tested the creature thoroughly and, to their shock, found no trace of the Bio-Agent. Lodi order it to be kept the utmost secret while she decided what to do. Lodi had been experimenting with reversing the process used to control cybernetics, to allow a computer to control biological matter. She had been looking for a test subject and this one had tested clean of the biological agent, so it would do. It was a terrible failure, the creature died slowly and painfully. But Lodi learned much from its example. She ordered that teams began regularly capturing these creatures, and smuggling them into the City. There she began implanting them with her control devices. It took nearly ten years to perfect, but finally it worked perfectly, controlled by the onboard AI the creature responded to her commands. She was ready.

Meanwhile, Magnus and his supporters had used this time to rebuild the area that had been so long lost to them: new homes, streets, businesses, and parks, areas for hydroponics, and green space for oxygen. The people of High-grid hadn’t been this excited in many years. Finally there was some space! All seemed well for many years.

But even as the reclaimed areas finally developed, there was a taint. In the still over-inhabited slums of the older parts of High-grid rumors of attacks began to surface. People talked of creatures much larger than men, attack in the worst neighborhoods. Fear began to spread about these new monsters. Fear that Lodi began turning to her advantage, gaining support. Amidst all this another power station is failing. Again the section is evacuated, but this time Tamer is sent out before the shield has failed to try and repair it. However he is attacked and killed by the “monsters” that had been terrorizing the slums. Magnus sent an special recovery team to get Tamer and the Device back. Upon the return of Tamer’s corpse, Magnus has no choice but to use Bella to wield the device. Her memory is suppressed and she has

training implanted, then she is given the device and sent to repair the shield that is threatening to fail at any moment.

Game-play Begins Here

“Technical Specs” Appendix

Field Mechanics

- Math is $(1-B)/\text{Ground} * \text{Sigma} = G$ forces applied to character in field
- Theory is that the field would lift towards B, but once at that height would then have more weight and fall towards the world.
- Friction = $(1/2 \text{ Speed})$ or @Bounce time
- @ Exit of Bubble- Velocity Vector + Gravity

See Tech Doc for Specs