

Game Design Document for:

Boss Chase

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Version # *1.01*

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Design History

Version 1.00

Version 1.00 is the original document.

Version X.XX

When changes are made, make brief entries about the main changes here, for each new version of the document.

Version 1.01

New people added to project who make awesome changes. :)

Overviews

Game

The Void, an ever-changing dimension, traps all that come in contact with it and you are no exception. Playing as one of eight roles, or creating one of your own, you must chase down the Void's elite to recover your most valuable possession. *Boss Chase* is a 2D Side-scrolling Game that mixes the two popular gameplay genres of Endless Runner and Boss Rush in a fast paced, high adrenaline game where quick reaction and determination rule.

Genre

Endless Runner, Boss Rush

Audience

The target audience for *Boss Chase* is anyone twenty-one years old to thirty-five years old. Yet, anyone who enjoys fast-paced action or Endless Runners will enjoy this game.

Gameplay

The gameplay is intended to be high action and fast-paced. The player must react quickly to not only their foes but also the environment as they run through the environments of the Void. Because of this, though, it is expected that the player has a short (under thirty minute) play sessions.

Story

The player plays as one of the unfortunate souls that have been trapped within the Void. Yet, they have learned how to harness the power of Soul Gems to fight against the Void. When the player activates the power of the gem, they gain the abilities of the soul trapped within. They plan to use these abilities to find their prized possession and return home.

The residents of the Void will not let the player get away that easily. They live off of the power of the Soul Gems and they sense a powerful force within the player. Not only that, but the player stole a Gem (represented by their chosen Role when starting a run) from them and they want them back. Using the energy from the stolen Gem as well as the power radiating from the player themselves, the residents of the Void chase after the player hoping to recover the stolen gem as well as gaining the player's gem when they die.

World

The world of the Void is one that most people know nothing about. It is ever changing, never remaining in one state for too long. Some think it is an imaginary place as those who talk about it are those who were close to death or were under a coma. The rest of those who are sent into the Void never return and are buried by those who never know the struggle their loved ones went through.

The Void is not without its citizens nor its habitats. It is separated into biomes which never stay connected next to its neighbors for long nor stay within its same position. Each biome has its creatures that cannot leave their home such as Goblins in the Grasslands, the Knights in the Corrupted Castle and the Lizardmen in the Molten Fields.

Aesthetics

The art style throughout the whole game is done in a painterly style such as what was done in *Dust: An Elysian Tail*. Yet, each biome of the Void will look distinct from each other. For example, the Grasslands will be full of green and blues and the Molten Fields have reds, oranges and blacks. The color palettes of each biome will not go above four colors.

The enemies will have a different color palette than the biomes, but will keep with a theme. For example, the goblins will have a natural color palette of greens and browns and will have the theme of piecemeal clothing and armor.

Unique Selling Point(s)

- Never stop fighting! Melding together two high action genres, Boss Chase forces players to react fast as they run through the Void fighting boss after boss.
- Customize your play style! While there are eight Roles the player can choose from, each building from four base Classes, players can create their own Role as a powerful Hero or a weak Peasant without worry of being locked out of any gameplay.
- Never fight alone! Boss Chase allows for two players to join together to fight the Void's Elite in Local Multiplayer Mode.

Story

Plot

The Void, a realm running parallel to ours, is a world that captures the souls of those who are weakened. Usually taking those in comas or who are close to death in the real world. It is alive, hungry for those who will sustain its existence. Those it takes are still alive, however. Just their presence in the Void is enough to power the realm. Yet, its citizens are a different story.

Those who reside within the Void are either monsters or corrupted humans who have been taken from worlds other than Earth. Instead of wishing for escape, they are willing citizens of the Void, using the power of those captured to survive. They have lived in the Void for so long that they have learned to sense the power of the ‘Pure.’ When they sense that power, they charge for the source, fighting until they have killed the source, turning into a Soul Gem that they can feed off of for years.

The Player (a human from various time periods of Earth) has found themselves within the Void, and they must escape. The only way to escape is to find their ‘most prized possession.’ The power from that possession will open a gateway that will lead them home. This will require them running from Biome to Biome, fighting from the monsters of the Void trying to kill them until they either find their possession, or die.

The Player Character

The Player Character is a person who has been picked out of their world and pulled into the Void. It is not certain if they are in a coma, near death, or what other condition they may be in. Also, it is not the same person every time, as the Void is very flexible when it comes to those it takes. However, no matter where they come from, they have become trapped within the Void and must get out.

One thing is the same between every person the player plays: they can channel the energy from a Soul Gem, a gem formed from those who die in the Void, and become the fallen soul. This allows the Player Character to use the power and abilities of the Soul to save themselves.

The Foe

The Void’s citizens are generally separated into two castes: the Minions and the Elite. The Elites are the strongest beings in the Void and are the main obstacles against the players. Each Biome of the Void has two or three Elites that rule over the Biome. Each Elite has a set of Minions that follow them and will hunt lost souls for them.

Story Vehicles

There are two main ways that the story of the Void and the Main Character is delivered. One, is the Glossary accessible from the Main Menu. The Glossary is the place where every character, premade role and world information is recorded. Most of it is lore that does not affect gameplay, but there may be hints hidden in the text to how to beat various Elites.

The second delivery method is through the voice overs from the Minions and Elites of the Void. A lot of it will be tells of when the enemies are attacking, giving the player a chance to avoid it. However, hidden in the lines will be hints of more of the overall lore.

Developer Notes

1/12/18: Would it be useful to use XML files to store the Glossary Entries? That way we just have code that loads the list of enemies and such from the file rather than trying to do it solely from the programming. It would make it really easy to edit and organize the data. However, it could require load time. NEED TESTING.

Also, could I program an in-engine plugin to directly edit the XML files instead of having to open the XML file every time I want to edit it? Think like the Divinity Engine Stat Editor.

Gameplay

Player Experience

The player should feel as if they are constantly being chased and in danger. Enemies will be spawning from various places on the map and attacking the player without mercy or hesitation. Not only that, but the game is fast-paced. The player will not have much time to rest and relax before they must react and survive again. Some of this will come from the environment as the player will have a small window to react to changes in the environment. The rest will come from the enemies with predictable but fast attack patterns. Any mistake could cost the player character's life.

Player Character Actions

Move

While the player character will be moving constantly throughout the levels automatically, the player can slow down or speed up the player character within the camera. Essentially, the character can be repositioned in the scene to avoid attacks or help the player prepare for upcoming environmental changes.

Jump

At any time, the player character can jump. This sends the player character up into the air, allowing them to land on an elevated platform or avoid attacks.

Slide

While grounded (the state where the player character is touching a platform or floor), the player character can slide. This sends the character to their back allowing them to slip through small holes in the environment or avoid large attacks. However, the player must be careful, because they cannot move while sliding and the act of sliding gradually slows them down.

Duck

While sliding and on top of a platform, if the player hits the jump button, they will duck under the platform. This is useful for avoiding attacks as well as general mobility throughout the level. If they try to duck under the level's floor, nothing will happen.

Collect

Placed in the levels at specific points are Void Crystals that allow for the purchase of various items in the In-Game Store (detailed in ‘Monetization’ under ‘Miscellaneous’). All the player has to do collect them is to run into them. They will automatically be put into the player’s collection to be saved when the player finishes their run (will not be saved if they quit out early).

Attack

At any time, the player character can attack. If the attack hits an enemy, they will take damage. Otherwise, the animation will just play. Each Role Class has a different attack which may require the player character to be up close or allow the character to be far away. The player can aim their attacks by using their mouse/right joystick to point at the direction the player wants to attack.

Developer Notes

2/01/18: Do this by getting the relative position of the mouse cursor on the screen. Then determine thresholds of direction of aiming by dividing the X/Y Screen Space four times (to essentially create 8 sections). Then, using those sections, determine where the mouse cursor is and aim the attack accordingly.

If the player is an Archer, this is super simple, just fire the projectile at the cursor. If they are a Grenadier, then some special arcing math will be needed (using Rigidbody2D?). For Knights and Brawlers, they need some very special guidelines. They must use the eight sections and some smart scripting to determine which of the cardinal directions to attack. Have 4-way attacking or 8-Way attacking? Would it be possible to having the animations face the cursor freely instead of having set directions? That way, the eight sections would not be needed at all. Blend Trees? Do some research/testing.

Dodge/Block

At any time, the player character can dodge/block an incoming attack. This allows the player character to avoid damage completely if timed correctly. Each Role Class has a different variation to dodging except for the Knight Role Class, who is the only one that blocks rather than dodges. Any overlapping damage while the player character is dodging or blocking is negated.

Enemies

Each biome has their own set of enemies that are derivatives of each other. Minions use the same AI behaviors for each of their classes (the Knight enemies use the Knight AI Script, Grenadiers use the Grenadier AI and so on) while all Elites have their own AI behavior unique to them and their encounter. There are some exceptions to this, most notably the Mythical Beasts of the Grasslands. These special AIs are marked by the Specialized keyword.

The sets of enemies in each biome will always have two Minions and one Elite. This is so that the player does not have to worry about multiples of four different types of enemies at once. That

could be too much to put on players at once, especially new players to both the game and to the genre.

The Grasslands

The Grasslands is where nothing resembling law, order or morals exist. It is overrun by goblin tribes and mythical beasts who are constantly at war. And when a new soul enters the Grasslands, they are immediately set upon by either side wishing to use their soul to give the other an edge in their eternal war.

Goblin Tribe

Born from wild bloodlust, the goblins eventually find themselves in the Grasslands. While there are multiple tribes, the only difference between them is who is ruling. Their bloodlust causes many goblins to die and this is the main cause for tribe fracturing. It also causes the tribes to fight against each other, even though they are fighting the Mythical Beasts at the same time.

Yet, when a new Soul enters the Void, they join forces to chase down and overrun the Soul to take it as their own. And when they do, whichever tribe kills the Soul not only gets the Soul's power, but is also allowed to use the Soul's blood in a ritual called 'The Blood's Call' which they believe will summon a powerful being called 'The Blood' that enfuses itself into their king, ascending the king into godhood. And they are not far from the truth.

Minions

Goblin Runt (Knight AI)

These are the smallest goblins of the bunch, young and wild they must prove themselves to their tribe by tracking down and killing the player character. Wielding simple, piecemeal equipment, they join the alchemists and whoever kills the player character will join the adults. Because of their age and bloodlust, their behavior is straightforward: run forward toward the player and attack.

Goblin Alchemist (Grenadier AI)

While there are not many Alchemists in the goblin's midsts, they are, by far, the smartest and most powerful goblins beside their king. They are the only ones willing to read arcane text and create magical concoctions. Using their skills, they attack the player character with explosive vials and while they do throw them haphazardly, they do put some thought behind their attacks. They will do their best to get close to the player so when they throw the vials, they will crash in front of the player.

Elite

Goblin King/Queen (Unique)

The Goblin King/Queen at first does not look any special, but that is far from correct. They have been imbued with power from a near godlike being that the goblins call ‘The Blood’ and knows how to use it.

While they are healthy (over 50% health), they take matters into their own hands, not using The Blood at all. They will just attack with their Stolen Blade (use reference from either the Corrupted Castle’s Guards or the Raiding Pirate’s Naval Army). Their only special attack as of this phase is moving away from the player, charging right for the player via a leap and swinging repeatedly.

However, when they dip below half their health, they will split into two forms: one their normal form, except without the blood decorations, the second a copy of themselves except made out of Blood. They still attacks by charging but adds a new special attack. With this new attack, they will move to one edge of the screen, choose a ‘layer’ (the battlefield consists of two platforms forming three ‘layers’), and swing their blade. This swing sends a curve of blood racing down the layer. The copy can only charge for the player, but the normal form can do both attacks. And the player can damage both forms to damage the King/Queen.

Mythical Beasts

Once normal animals living in the grasslands, these Mythical Beasts have been strengthened by the power of the Soul Gems and now have gained sentience. They were hunted by the goblins, but now they fight back as a means of self-defense. Knowing that Souls are the things giving them their power, they attack any new Souls that fall within the Void and take the power for themselves. When a Soul is killed, each beast that took part in the kill takes a part of the Soul. Yet, when they saw that the goblins are also trying to take the Souls, they fought in earnest, hoping to be the kings of the Grassland.

Minions

Charging Bison (Specialized Animal AI)

A normally calm animal, the hunt of a Soul awakens the Bison into killing machines. Fueled by their need for power and using their large bodies to their advantage, they will charge at the player a few seconds after entering the field. When they exit the other side of the screen, they do not return, their charging the only opportunity to harm the player.

Agile Cheetah (Specialized Animal AI)

Unlike the Bison, the Cheetah do not need any excuse like ‘hunting Souls’ to chase down a prey. They live on the thrill of the hunt, the chase, the moments leading up to their target’s death. That is why, when they spawn into the field, they do not attack immediately. They instead try to surround the player, to toy with them, before leaping one at a time. This pattern will continue until either they are dead or the player is dead.

Elite

Leader of the Pack (Unique)

Using brains rather than strength or thrill, the Leader of the Pack will take his time and move around the field before attacking. At each quarter mark of his health, the Leader of the Pack will let out a large howl that will summon a pack of wolves (between two and four) that will leap directly at the player. Otherwise he will wait it out and attack the player if they get close.

City of Metal

While the other biomes struggle with the constant sundering and rebuilding of their homes due to the chaotic nature of the Void, the City of Metal and the scientists that live within have developed means of damage control from the strange phenomenon. One of their solutions was to build their city in districts made with magnets that stick various buildings, lights, etc. to whatever part of the city was being destroyed. That way, when the city parts are set back near each other by the Void, they can A) be relatively intact and B) be put back together relatively easily. Yet, this requires a lot of power, which the scientists get from Soul Gems bought from the Crystalline Caverns or taken from fresh Souls.

Organics

One of the two main factions of the City of Metal, the organics are scientists who have built the city from the ground up along with the artifices that now rule over a part of it. When the Artifice Uprising began, the Organics built basements within the city that would stay intact when the Void altered. There, they used their devices and laws forbidding of any sentient creations to look and follow possible Souls to power their inventions and eventually start the Metal War to reclaim their city. When that potential Soul enters their section of the city, the Organics immediately leave their holes, using their creations to kill the Soul and steal the Soul’s gem.

Minions

Pulse Engineer (Archer AI)

Equipped with their pulse cannons, these engineers are relatively slow compared to the other enemies found within the City of Metal. Yet, this does not mean that they are useless. Their cannons can fire large balls of energy that threaten to tear anything that comes in contact with it

from limb to limb. They fire these deadly projectiles in a straight line, using a Consistent Trajectory Adjustor mounted on the cannons.

Enhancers (Brawler AI)

These scientists decided to take matters into their own hands, literally. Developing various concoctions, medications and mechanics, they have strengthened their bodies to deal out and deal with the stresses of combat. Using specialized gauntlets that deliver a great shock to those they hit, they get up close and personal, delivering quick blows to vital points. This is to ensure that their target falls as fast as possible.

Elite

Head Engineer (Unique)

Taking the title of Head Engineer was not easy for Knibble Gnobber. He had to outwit, outplay and outkill the competition. But with key allies (who later died of ‘mysterious circumstances’) and key inventions he succeeded. Now, as the Head Engineer of the Organics within the City of Metal, he leads his forces against potential Souls. When the others fail, though, he takes to the field with his flying boots and storm-gauntlets. Instead of running, the Head Engineer uses his flying boots to stay in the air, giving him mobility and many angles of attack. He has one main attack, shooting bolts of lightning from his storm gauntlets at the player.

While he is above 50% health, he has one special attack: Mine Throw. With this, he throws out three mines that grow legs. The mines’ legs allow the mines to ‘move’ so that they can essentially remain in the same spot on the field (as the player character will still be ‘running’ through the City). These mines can be damaged by any attack, blowing up. The splash damage from their destruction can damage both the player and the Head Engineer.

When the Head Engineer hits the 50% health mark, he adds a new special attack: Storm Strikes. Using his storm gauntlets, the Head Engineer summons three lightning strikes that appear one after another with a delay between them. They appear randomly and have an indicator of when and where they will strike.

At the 25% mark, the Head Engineer enrages and his attacks change. The mines will leap at the player when they get too close, trying to hit the player. No matter what, when they hit a surface, they will explode. The Storm Strikes will appear in more numbers and will strike down faster.

Artifices

These machines were created as guardians and protectors of the City of Metal programmed to be spaced out so that when the Void split and reformed, there would be some of these Artifices at the various pieces of the city. Yet, the mistake of the scientists and engineers was to give these

machines autonomy, allow them to make decisions on their own so they could make the choices necessary to protect the city. On its own, the autonomy was not bad. It allowed these machines to make the tough decisions and calculations necessary to deal with human life.

The mistake came in when the Artifices started gathering the power of the Soul Gems in excessive amounts. Some of the personality of the Soul entered into their programming, most notably, the desire for freedom. Eventually, this desire was so great that the Artifices started attacking their creators and tried to leave the City. Yet, their programming to be forced into the city was still there, and the consequences of trying to leave were too great for them. Now, they roam the city, hoping that the power of Soul Gems will be enough to allow them to leave without pain of death.

Minions

Slammer (Specialized Archer AI)

A humanoid looking machine, the Slammer uses its larger-than-normal fists to its advantage. When it is spawned into the field, it does not move at all. Instead, it will periodically slam down both fists. The impact of the fists sends a shockwave rolling down the ground toward the player. This shockwave will damage the player if they make contact.

Lobber (Grenadier AI)

The lobber takes the form of a tank with two arms. These arms constantly rotate, reaching back to grab an explosive ‘lob’ from its storage then fling it upward toward the player. They fling these lobs at a constant arc, so they try to move back and forth to try to make them explode on the player. The lobs, no matter what they hit, will explode, damaging anything within its splash zone.

Elite

Stomper (Unique)

Stomper is the greatest artifice made by the Head Engineer, Knibble Gnobber. Being the strongest and largest of the artifices, it does not need any weaponry to fight. It just needs to stomp down upon its foes. Which it does greatly.

This is a unique boss in that it does not have phases. Throughout the whole fight it has two attacks. One, he will charge ‘in place’ before rushing back and forth across the battlefield. The player can avoid this by moving toward a spot where its feet will not land (indicated). Two, he

will launch himself into the air and land in the exact center of the field, crashing through all of the platforms. This sends shockwaves outward that will damage anything on the field.

Molten Fields

The instability of the Void has caused some of the land to become unstable themselves. The Molten Fields is an example of this, where the tectonic plates are much more active causing earthquakes and volcanic eruptions every hour. Because of this, the land turned quickly into volcanic rock and magma roams freely.

But that allowed its denizens to grow in power as they thrive in the superheated biome. The dragons make their homes in the volcanoes, sustaining themselves on the lava and obsidian. The fire elementals, created from the magma and superheated rocks, live an independent and carefree life. These two forces do not attack each other as they have enough space and resources to survive. They, in fact, try to stay away from each other, because they know that a war would destroy their biome with their equal power.

Dragon Horde

These scaled beasts are grand in a way that few can describe. Their red-tinted scales are made from the volcanic rock and lava in their homes which give them a great defense that is hard to penetrate.

Normally a peaceful race of creatures, they will attack when they find any intruders. They do not care if the intruder is a Soul or a random person from one of the other Biomes. And when they attack, they do so without any form of mercy. Breathing the lava they literally drink up as cones of flame and clawing with their human-sized talons, they easily take care of anyone they consider a foe.

Minions

Whelping (Archer AI)

The youngest of the dragons, these little guys are the first line of defense for the dragons. Don't underestimate them for their size, though. They can spit out balls of fire that, while weaker than their mother's, can kill a Soul just the same. Not only that, but they are fast, using their small size to avoid attacks. Many whelpings have killed Souls over the centuries that the Void has existed because they were underestimated.

Young Drake (Brawler AI)

Grown in size, the Young Drakes are next in line to kill intruders. Instead of using fire, they like to get in close and slash at opponents with their newly grown talons. However, because of their size, they are not as fast as their younger siblings.

Elite

Mother (Unique)

When her children cannot succeed in killing an intruder, the Mother Dragon swoops down from her home to attack. When she is not attacking, she is flying overhead. Otherwise, she has three attacks. One is a fire breath that covers one whole row of the field. The fire breath leaves magma on the row for a few seconds, dealing damage to anything that touches it. The second attack is a swipe of her claws at the player, dealing damage if it hits. The third attack happens every time she hits a quarter health mark. She will leave the battlefield. Then, appearing in the background at the approximate place she will dive to, she will sail over the field damaging anything in her line of attack.

Fire Elementals

Born from the earthquakes and volcanic eruptions of the Molten Fields, these sentient fire creatures roam throughout the land, content on feeding on the magma. Like the dragons, these are a peaceful race, not even bothering to fight an intruder assuming that they are peacefully moving through the Fields. Yet, unknown to them, they have the unstoppable desire for Soul Gems. Not because of their power, but because of their beauty. The power from the Gems are only a secondary motivation. If one looks closely at the metal bonds formed at the elemental's birth, they will find that some will have Soul Gems set into them while others do not.

Minions

Bound Fire (Brawler AI)

These elementals do not have their Soul Gems yet. So, their desire for the Gems is great enough that instead of transforming their limbs into weapons and shields like their brethren, they use their bodies to sear their opponents. When they attack, they will fly out into the background, then turn to practically body slam the player's position when they started the attack. They do not care if anything else gets hit by this attack and will not work to avoid their allies.

Desired Fire (Knight AI)

Already having their Soul Gems set into their metallic accessories, these elementals do not have the same passion for the Soul Gems that their brethren do. Yet, they still want to fight any Souls

that appear. So, using the power of their Soul Gems. they form their own limbs into weapons and shields that they use to attack.

Elite

Grand Elemental (Unique)

Those elementals who have gained many Soul Gems and metal settings to attach them become Grand Elementals, elementals who are just surging with the power of the Soul Gems. With this power, they join the fray, wanting to add the Soul's Gem to their ever growing collection.

When they are above 50% health, they are running on the ground. They are large enough that being under their feet will damage whatever is there. As he runs, he will lob fireballs at the player. When he is below 50%, he will take to the sky and add two attacks. One is that he will fly off screen, then fly back through the field, slamming his fists multiple times down onto the ground. The second is that he will move to one side of the screen or the other and send a continuous beam of fire down. As he fires the beam, he will move to the middle of the field.

Land of Ice and Snow

The polar opposite of the Molten Fields, the Land of Ice and Snow is, as its name suggests, a field of hills, ice and snow. Because of this extreme, there are not many residents of this biome. Yet, there are two factions that have hunted each other and everything else residing here to extinction, fighting an eternal war against each other for food and land. Any Souls that enter the land are seen as potential food rather than a power source, and must run from the denizens or else become food.

Frost Giants

Frost Giants are massive humanoids that live up in the mountains of the land. If one looked closely at the background, they would be able to see the giant's caves where they live and take their food. Unlike their barbarian neighbors, they survive on the critters and beasts that still live in their biome. Yet, they are not afraid to cook up a Soul when it is foolish enough to enter their home.

Minions

Gatherer (Archer AI)

These giants are the ones tasked with going out into the wilds of the biome and hunting the tribe's food, whether it is nearby plants or beasts. Armed with great bows and javelin sized arrows, they move fast for their size to take down any prey that comes across their path. This

does include Souls, as the Soul finds out as soon as they enter the Biome. The Gatherers are usually the first to appear, firing off shots that the player has to work to avoid.

Warband (Knight AI)

Typically only called out of their caves when a battle is a foot, these giants will join the hunt of a Soul or Barbarian when it looks as if the Gatherers cannot do it alone. They carry greatswords that have great range. However, their attacks are slow, giving Souls a while to dodge or block.

Elite

Warlord (Unique)

In the event that none of her subjects can kill an invader, the Warlord (always female) of the giants will climb down the mountain to do battle. Using a lance and shield, she has a basic attack and two special attacks. Her basic attack is to stab down at the player periodically. One of her special attacks is to throw her lance up into the air. Seconds later, it will come crashing down upon the player unless they move. Her second special attack is that she will slam her shield down into the ground. This causes tremors that send spikes of ice/iced stone from the ground to pierce the player.

Barbarians

The foes of the Frost Giants, the barbarians are tribal men and women that live in the forests and plains of the Land of Ice and Snow. Wearing layers upon layers of clothes, they are a primitive tribe, some would say even more primitive than the Frost Giants that attack pretty much anything that moves in front of it, even other tribal members. Add on cannibalism and utter disregard for anything relating to mercy, and you have a group of people that are the definition of chaotic. Unfortunately, that means that any Soul who enters the Land of Ice and Snow must fight them.

Minions

Trappers (Grenadier AI)

These women are the ones to go out into the wilds, making and repairing traps as well as retrieving anything that their traps catch. Usually this means that half of the things trapped get eaten before they are returned to the tribe. In a Soul's case, these traps will damage them as they are thrown or if they run into a trap already set onto the ground. Their quick reaction will keep them from being completely trapped, but they still need to be careful.

Warriors (Brawler AI)

Taking the route of ‘slash anything until its dead’ these guys hunt and take down intruders with their two axes. A lot less subtler than their partners, they will charge right for the player and attack without mercy. Also with a lot of yelling.

Elite

Warchief (Unique)

In the back of the raid after the Soul is the Warchief, a burly man wielding a dozen axes and a snarl. Running with his tribe, he eventually meets with the prey, ready to tear into it with everything he has. While he is above 25% health, he uses his axes. One of his attacks at this phase is that he will rush up to the player slashing twice with his axes. His other attack is to toss three axes at the player, throwing them at whatever position the player is at when he prepares his throw.

When he hits 25%, though, he switches to a much more primal mode. He disregards all of his axes in favor of his fists, claw-like nails, and teeth. He will swipe twice and bite once at the player in a three hit combo, each attack able to deal damage. His second attack at this point is that he will rush forward, biting constantly, until he reaches the edge of the screen (or beyond it?). When he does, he is ‘exhausted’ and stands still for a few seconds, giving players a chance to hit him. His last attack is to leap into the air and land on top of the player, hoping to bite the player that way.

Crystalline Caverns

These caverns are believed to be the origin of the Soul Gem. The theory by the Harvesters living there is that at the point the Void was born, the crystals formed in these caverns were inert. But, as more and more Souls were trapped in the Void and die, some of their energy does not enter the Soul Gem and escapes out into the Void. When the energy gets close, the crystals pull it in and store the energy of the Soul. Now, the Harvesters collect these crystals to sell to their neighbors and create the Soul Golems to protect them. When a Soul runs through this place, the Harvesters and Soul Golems chase after them to protect their income. fearing that the Soul will destroy their hard work.

Soul Golem

Creations of the Harvesters, using the power of the Soul Gems that are embedded in their bodies, the Soul Golems were created to protect the Caverns and Soul Gems inside from anyone who may want to steal them. They are not sentient like the Artifices of the Metal City, so there is little risk that they will revolt. The Harvesters put in protections just in case, and so they just have pre

programmed actions when dealing with a situation. They are typically the first line of defense in the Caverns.

Minions

Needler (Archer AI)

With Soul Gems poking out of every crack and crevice these golems may have, the Needlers are the ranged fighters of the golems. They use the Soul Gems to shoot out needles of purplish energy at the player. Not only do these shoot forward but also at angles up and down from the golem.

Protector (Knight AI)

These guys use Soul Gems that are fashioned like swords and shields when they attack the player. Their swords, when swung down, also let out a small arc of energy that only shoot out a couple of inches from the blade. Not powerful or far reaching, but it helps extend the weapons' range.

Elite

Grand Golem (Unique)

This fight is a unique one because it is a fight where the player Wall Jumps instead of just running along the screen. They will be constantly running up the side of a vertical cavern, jumping back and forth to avoid attacks. That is because this golem can meld and shape the stone around it using the power of its Soul Gems. And it does so to climb up and down the cavern. The player can see it as it exposes its back and some Soul Gems when it is not attacking.

Throughout the fight it has four attacks. One attack is a simple bash at the player using its exposed back. It will move to the players position then lash out. Its second attack is to use its exposed gems to shoot out beams of energy out at angles. The tell for this is that the Soul Gems will glow brightly before discharging.

Its third attack is that it will move to the center of the field, above the player, and slam a fist into one side of the field. This will cause a stone wave to slide down the wall it hit and the player must Wall Jump to avoid it. It will do this at least three times and up to five times. Its last attack is that it will move to the center of the field and charge down it, blocking the player's ability to Wall Jump.

Harvesters

The ones who first found the power of the Soul Gems, these men and women will do whatever it takes to defend their valuable prize. Taking the Gems to empower their weapons as well as the golems that help defend the Caverns, they will do everything it takes to kill any intruder into their home.

Minions

Gem Launchers (Grenadier AI)

Using weapons that look a lot like a real world grenade launcher, these Harvesters use failed Gems to power the launcher and as projectiles to shoot. These projectiles arc up into the air and shatter whenever they hit an object, whether it is a character or the environment. When it shatters, it deals splash damage, damaging anything in its radius.

Gauntlets (Brawler AI)

Using inspiration from the Scientists and Engineers in the City of Metal, the Harvesters developed a gauntlet that not only increased the wearer's strength, but let loose with a blast of energy that will help extend the wearer's attack range. However, this does weaken the overall power of the weapon.

Elite

Master Harvester (Unique)

The Master Harvester, through his constant work with the Gems, has developed a method of controlling the Gems without needing a weapon or to even touch them. He calls it Soul Chains, saying that it is like creating a link between himself and the Gems.

Throughout the fight, he has six Gems floating behind him, rotating in a circle. As he takes damage, he loses his Gems, one for each sixth of his health. However, this means that the Gems can have more power pulled and pushed into/from them, giving them more speed, size and power. When he is about to attack, the Gems increase their rotation as a sign to the player.

One such attack is that he will thrust out a hand. A second after he does, the gems will all rocket toward the player's location when each Gem is fired. He will then pull them back a set amount of time, allowing the player a chance to attack.

His second attack is that he will raise his hand upward. A second later, Gems attached to the ceiling and ground will close together like a jaw, leaving only a single place to be safe. If the player cannot get to the safe place in time, they will be damaged.

His last attack is that he will summon three giant Gems that will hover for a split second before simultaneously falling to the ground.

Corrupted Castle

The Void is a powerful place, and no Biome shows that any better than the Corrupted Castle. Energy from the Void has seeped into every part of this massive building, shown in the stones, furniture, and inhabitants. Veins of purple crack along the castle and because of this, the Biome has never been taken over. However, that does not mean it does not have any guards protecting it. The Royal Guards patrol the walls and the halls, attacking anyone they see that has not been taken by the Void. But also hidden in the shadows are the Royal Assassins, sent out as spies and assassins, or to silently deal with any enemy inside the castle. All of them are ordered by the Corrupted King.

Royal Guard

Given power by their King and Castle, these men and women are the first and last line of defense between any intruders and the King. They take no prisoners, gathering the energy from any killed Souls to power the King, who would then use some of it to power his Castle. With their Crossbowmen at the back and the Knights in the front, they use their great power and numbers to try and overrun any enemy.

Minions

Crossbowmen (Archer AI)

Wielding larger than normal crossbows, these crossbowmen stay at the back and the front shooting their bolts at the enemy. Their bolts, however, are not the same as normal crossbow. Not only are they slightly larger, but after a second they also break apart, sending three bolts at angles from the breaking point.

Corrupted Knights (Knight AI)

With full plate armor, shield and blade one their side, these guys are simple enemies. They will run right for the player and just keep attacking.

Elite

Corrupted King (Unique)

Angered that his subjects cannot kill a measly Soul or two, the Corrupted King will take to the field. In one hand he wields the Royal Longsword and in the other he has the Royal Staff. He uses both to try and kill the Soul(s).

Throughout the fight, up until the 25% health mark, he will randomly switch between his ‘blade’ form and ‘staff’ form. While in his ‘blade’ form he will run on the ground with the player and while in ‘staff’ form he will float anywhere on the map. When he hits the 25% mark, he will use both at once, combining the attacks from either form.

While in ‘sword’ form, he has a basic attack where he swings at the closest player. One special attack is that he will rush back and forth across the screen four times with a delay each time. A second special attack is that he will launch into the air then come down on the player, dealing splash damage.

While in ‘staff’ form, he has a basic attack of shooting a lance of corrupted energy. One special attack is that he will move to a corner of the screen and shoot down a continuous beam of energy that will follow the player for a couple of seconds. His second special attack is that he will move to the center of the field and crackle with energy. Once he is ‘charged’ he will release the energy, sending beams out at angles.

When he is in his ‘berserk’ form, he will start combining the attacks. For example, when he uses the staff form’s second special attack, he will afterward crash down into the ground. When he is using his sword form’s rush attack, he will be crackling with energy, adding a damaging aura to himself.

Royal Assassins

Used as spies and assassins, the men and women who hunt in the shadows of the castle do not fight quite the same as the guards. The power given to them by their King does not enhance their strength. Rather, it improves their stealth and cunning. And under the training of the Master Assassin, these men and women are absolutely dangerous. Only a fool fights against them. A fool, or a desperate Soul.

Minions

Poisoner (Brawler AI)

When one thinks of a close-quarter brawler, they think of a brawler landing punches. Like those in the City of Metal and the Crystal Caverns. The Poisoners think differently. These guys wield a single dagger visibly dripping with poison. For their first attack, they will suddenly appear in a puff of black smoke, wait a second or two, then attack, giving the player a chance to evade. They never disappear again until they die.

Bombardier (Grenadier AI)

Used as a distraction for the Poisoners to attack, the Bombardier lob alchemical bombs from crossbows. The bombs deal splash damage to the player. They never disappear or reappear like the Poisoners.

Elite

Master Assassin (Unique)

The one who trained all of the Royal Assassins, she will not stand by while intruders kill her men. At first, when the player enters her area, she does not appear. However, an observant player will be able to see the light reflecting off of her body.

Not matter what, her opening gambit is to wait a slightly randomized amount of time before launching a fan of knives toward the players. A well timed jump will keep the player(s) safe from this sudden attack.

After that, she has a basic attack of charging toward her target and slashing twice with her daggers. One of her special attacks throughout the fight is that she will disappear for a few seconds and a few seconds later will either toss a bomb at the player or slash with her daggers again, reappearing. Her second special attack is that she will split into three copies of herself. If the player fails to hit the right one, she will attempt to attack them with a hidden crossbow bolt. The player can tell which is the real one because the others will have hints of smoke coming out of their bodies.

Roaring Sea

Out of all the Biomes, except the Grasslands, the Roaring Sea is the one to be the most feared. It and the Grasslands are close together in that race. This is because of the Pirates that invade other Biomes and steal whatever they can. On the Sea are ships and ships and more ships filled with stolen treasures. Only the Naval Army stands in their way in their eternal war.

Pirates

With ships full of stolen goods, these men and women are master raiders, attacking the neighboring Biomes whenever the Void brings them together. While the joy of the raid drives them, they also need their stolen goods to survive as they are essentially stuck on their ships in the ever changing realm that the Void is. However, their bid for survival has pitted them against the naval forces originally sent out from the Corrupted Castle, but now share the same fate as the Pirates.

Minions

Duelist (Brawler AI)

Wielding two curved blades, these pirates are the close quarter combatants of the Pirates. They are the ones to board other ships and are usually the ones to take what their captain demands, whether it is goods or the ship itself. To do this, they are fast on their feet, dodging to get close and attack their foes.

Cannoneers (Grenadier AI)

These pirates do not wield their weapons as much as they mount them. They stand on platforms attached to mobile cannon platforms, driving the platforms using the power of the Soul Gems attached to them. They will periodically fire cannonballs at the player, trying to arc them so that they hit.

Elite

Pirate Captain and Second Mate (Unique)

These two pirates work in tandem throughout the fight. They have their own separate health bars as they are two separate people. The Pirate Captain wields a scimitar and a pistol while the Second Mate wields two pistols.

They do not have any special attacks that they use in tandem (such as a combination attack). Instead they attack separately, however their attacks can overlap, making the fight difficult for the player.

The Pirate Captain's first basic attack is that he will charge horizontally, swinging with his blade, then spin around and shoot two rounds from his pistol at the player. His second basic attack is that he will grab onto a hanging rope (that rolls in from the edge of the screen when the attack triggers), swing upward at the player, slashing them as he curves up. When he reaches the top of his swing, he will shoot down at the player.

The Second Mate has two basic attacks as well. His first basic attack is that he will leap up to an upper corner of the screen and fire four shots at the player. His second basic attack is that he will jump to the center of the field. As he falls, he will shoot shots in both horizontal directions three times.

Naval Army

Sent out by their king before the Void corrupted him, the Naval Army was tasked with combating the Pirates that threatened their home. Soon, however, they found themselves trapped within the Roaring Sea as the Void altered itself around them. When they finally found their home, it had changed, corrupted by the Void that kept them away. Now, without home, they fight the pirate forces in an endless war.

Minions

Scout (Archer AI)

The Scouts of the Naval Army are those who act as lookouts and are the first ones to open fire in combat. With rifles in hand, they fire at anyone that are not a part of their ships, whether it is a pirate or a Soul.

Boarder (Knight AI)

Boarders were men who wielded sword and shield against any potential boarder to their ships. However, it soon became clear that they would have to do some boarding themselves. So, they forgo their shields, learned to block with their blades, and board the pirate ships.

Elite

Pirate Hunter (Unique)

Having to learn on the job, the Pirate Hunter was once a well-known knight within the now-corrupted castle. He studied and survived many pirates in his day and now knows their tricks and strategies. He uses these skills against the players using two longswords and a rifle.

He has two basic attacks. One is that he will approach the closest player and swipe once. His second basic attack is that he will sheathe one weapon, pull out his rifle and fire.

One special attack is that he will pull out his rifle, brace himself and fire three piercing shots that travel across the whole area. A second special attack is that he will use his two swords to rush at the player, swing twice, move away, move back, attack the player, and continue on that loop for two more times. His third special attack is that he will call a bombardment on the player, a second boat sailing up in the background, sending cannonballs from that boat raining all across the field.

Combat

The player will fight against two main foes: The Minions and The Elite of the Void. Combat in both instances are similar.

When fighting against the Minions, the player not only has to defend themselves against the Minions but also watch out for the environment changes as they will be running through the randomly generated Biome. The Minions have individual AI behavior that will react to the environment and the player in various ways. While the player has not started a fight with the Elite, Minions will keep spawning. Otherwise, the only time the player has to fight Minions in the Elite's fight is either A) if the Elite summons Minions or B) if there are Minions still on the field when the player starts the Elite fight.

When fighting against the Elite of the Biome, unless the earlier mentioned conditions are met, the player only has to fight the Elite. The field of battle remains relatively static, only changing if the Elite fight requires it. Like with Minion fights, the player will be running through the Biome, but the battlefield will essentially move with the player. For example, if the Elite's battlefield includes two platforms, those two platforms will remain no matter how long it takes the player to kill the Elite. However, the boss may spawn traps upon those platforms that despawn when the player hits them or they leave the field and the bosses are much harder than the minions to kill.

Level Setup

Biomes are set up by putting together chunks of the level (or ‘Level Blocks’) together in a randomized way. This allows the best balance of randomness yet familiarity for the player while making it easier for the team to implement the setup system (tentatively called the ‘Snap System’ for the fact that these Level Blocks ‘snap’ together seamlessly). This includes multiple layers of level for sections like Wall Jumping Sections.

Each Biome has a set number of Level Blocks (currently the idea is a dozen) that can be taken and snapped together. Not included in this is the Elite Encounter Blocks that have one or two derivatives made specifically for the fight with the Elite of the Biome.

While the game is two-dimensional, there is the idea of adding three-dimensional aspects to the game by not only using a layering system but also moving the Level Blocks. This would be done by adding ‘curving’ Level Blocks that will force the player character to turn in the level. It would add a new layer of complexity for both art and programming, but it would add a unique element to the game and add some immersion for the player.

Sometimes, there will be something that moves in front of the characters and platforms (such as buildings in the City of Metal or ships in the Raiding Pirates). When this happens, the player and any of their projectiles will be outlined (or filled in) with blue, enemies and any of their projectiles will be outlined (or filled in) with red and platforms will be outlined (or filled in) with green. That way, the player is interrupted as little as possible when a random object flies in front of their battlefield.

Obstacles

Each Biome will have their own obstacles that the player must be aware of. However, most of them are environmental pieces that do not damage the player. The only time the player is damaged by an Obstacle is if they run into a Hazard (such as spiked floors or swinging maces) or if they are trapped by an Obstacle and hits a damage zone placed outside of the camera.

Tutorial

There will be a tutorial that the player can access at any time. Among various settings available when the player prepares for a run is a setting labeled “Play Tutorial.” If the run is the player’s first run and they do not have this setting set, the game will ask if the player wants to play the tutorial. If they select ‘Yes,’ then the tutorial is added for them.

The tutorial itself is modeled like a normal run. However, there are a few differences:

- The Tutorial is shorter than a normal Biome section.
- It is static. The same level parts are used every time the tutorial is played to guarantee ease of understanding.
- When a prompt for a new control pops up (for example, when the player needs to slide for the first time), the world slows down to a crawl, giving the player plenty of time to find out what button to press and where on their controller/keyboard the button is.
- The tutorial does not count toward the player’s final stats.
- The player cannot die, and when the tutorial ends, they are restored to full health to let them play the actual run from the beginning and without a disadvantage.

Replayability

There is a lot of replayability in *Boss Chase*. Endless Runners have inherent replayability within them with the concepts of getting as far as possible and the fast reactions necessary to survive the environment. Add adrenaline pumping combat and the emotions after a successful victory against a boss and there is great want to go for another run. The concepts of randomness when it comes to the environments guarantees that there is no two copies of a run, helping replayability even more.

Art Style / Aesthetics

Art Style

All of the biomes and UI will have the same art style, using games such as *Dust: An Elysian Tail* as inspiration. They will have a painterly and cartoonish style that only uses realism as a means to make the environments believable.

The Grasslands

Description

City of Metal

Description

Molten Fields

Description

Land of Ice and Snow

Description

Crystalline Caverns

Description

Corrupted Castle

Description

Raiding Pirates

Description

Animation Style

All characters will have the same animation style. Because of the Role Creator, which includes custom armor outfits, we must use a Bone-Like animation style, where a Hierarchy of sprites act as bones that will then rotate and move as needed. These animations will be saved as Unity Animation Clips and controlled by an Animation Controller and an Animation Script.

The Animation Controllers will be as generalized as possible. However, the specific animation clips will be created based on weapon choice and Role Class. For example, all characters, enemies and players alike, that run will have the same animation clip for running. However, sword and board users will have different attack animation clips than gauntleted brawlers.

The Animation Script will be as generalized as possible so it can be reused between not only the player's Roles but also the enemies. This means having variables named the same exact thing between Animation Controllers and having Animation States named the same exact thing.

While the Animations will be based on reality and believability, they will not be one hundred percent realistic. This allows the animator freedom to allow expressive animations, especially for animations such as a back attack (the player/enemy attacking behind them).

The enemies will mostly use the same animation style. Yet, there will be some special implementation for some enemies, mostly non-humanoid shaped enemies like the Lobber in the City of Metal.

Developer Notes

2/8/2018 - Use a form of Animation/Avatar Masks to mix in the running/attacking animations? Or just do it purely from the Animation Controller? And what about Blend Trees? Look at this: <http://gamedevelopertips.com/unity-run-2-animations/>

2/13/18 - New idea: attach a script to the torso that rotates the body to look at the mouse cursor (screen to world function) up to a certain point (to mimic real bodies). Since all of the limbs needed for the attack animation are attached to the torso, it should account for the attack animation as well. Need to test with running animation, but should be fine.

2/22/18 - Need to remember that there is no need to worry about transferring animations between player characters as they will all be using the same base (separated by gender).

Effects Style

Unlike the character animations, the various visual effects (such as getting damaged, collecting Void Crystals and dying) will be done frame by frame and slicing the frames in Unity. These frames will then be put into Animation Clips that play either 'On Awake' or controlled via various Animation Controllers. These will almost always be 'Looping.' The only effects known to not be 'Looping' are ones like explosions, that play once before destroying themselves. They will all be hand painted in the same art style as the game as well as give off artificial light (as appropriate) which will be done in the art frame rather than in engine by faded strokes.

Interface Style

While the general art style of the Interface will be the same as the rest of the game, they will have a darker theme to them. For things such as Health and Crystal Count, the better for the player the count is, the lighter it will glow/pulse. For example, if the player's health is full, then their health icon will have lighter colors, pulse more frequently and glow brighter. If their health is low, then their icon will have darker colors, pulse less and glow dimmer.

User Interface / Controls

Interface

During the run, there will be a minimum amount of things showing on the interface. This is to let the player focus as much as possible on the gameplay. In that vein, the only thing that will be shown to the player constantly will be their Health as this is something that the player will want easy access to all the time. The other things that may appear on the interface under certain circumstances are the player's current Void Crystal Count and the Current Elite's Health.

The Void Crystal Count is the total number of Void Crystals that the player has collected including what is saved on their save slot. This count will only appear when the player collects a Void Crystal (detailed in the 'Gameplay' section). Once the interface animation plays, the count will stay on for two seconds before fading out.

The Elite's Health is the amount of health the Elite that the player's fighting currently has. This will only show up once the player enters the Elite's section of the level. It will fade in over two seconds and will animate/fade out as the boss's death animation plays.

Menus

Main Menu

Options Menu

Glossary Menu

Play Game Menu

Role Creation Menu

Role Selection Menu

Void Run Settings Menu

Pause Menu

Run End Menu

Messaging

There are many ways that the game tells the player what is going on. There are visual cues, icons flashing colors, visual effects, knockback effects and more. At the same time, there are audio cues, voice overs for enemy attacks, grunts and cries from damage/death, sound effects from collecting Crystals, etc. We plan on avoiding text messages as they require players to focus on them to read when sound and visual cues require less focus and can be understood quicker.

Music and Sound Effects

Music

In general, the music of *Boss Chase* will be energizing and motivating music. It is music that is meant to elevate the player's adrenaline and fighting spirit. It will do so by having a steady drum beat and moving melody by strings. However, each Biome will have their own theme and own instrumentation.

There will be different songs for various conditions during gameplay. For example, while the players health is low, if the boss has low health, if there are a lot of minions on the field, and so on. There may even be some for a combination of conditions. The sections for the songs will be made fairly short and able to be tied into each other. This will help smooth the process of switching songs as easy as possible. This will also allow for some randomizations of the sections to help prevent repetitiveness.

Developer's Notes

1/26/2018: Is there a way to shift pitch, time-scale, tempo, and so on in engine during play? If so, that could be an option to make various versions of songs for low health, victory and so on.

Inspirations

- Jonathan Young
 - Oogie Boogie's Song (Metal Cover)
 - Ducktales Cover
- Miracle of Sound
 - Hell to Pay
 - Shadow of War
 - Jet Black Dress
- Super Meat Boy
- Andrew Stein (Mandopony)
 - Nothing Remains
- Nathan Sharp (NateWantsToBattle)
 - Madness
- Fairy Tail
 - Ashita Wo Narase
- Dark Cloud 2
 - The Battle (for "about to kill the boss" kind of music)
 - The Dark Battle (for "about to die" kind of music)
 - Both of the above for Corrupted Castle?

Miscellaneous

Monetization

The current plan for monetization is a one-time purchase of \$10. The idea of having DLC is being considered, but is not any sort of priority at this point. If DLC becomes something that we wish to pursue, the current ideas include new Premade Roles and armor parts to use in Role Creation (including the armor parts used in the Premade Roles).

Another idea is to work with Steam Workshop, allowing Players to make their own Armor Parts and Roles to share.

Any new Roles Classes, Bug Fixes and Gameplay Changes will be free updates. The only thing we will sell through DLC are cosmetic items.

Character (Role) Creation

With Role Creation, the player is able to essentially create their own character. They can choose from various options (listed below) from Skin Tone to Armor to Stats. None of these choices will prevent players from accessing any part of the game and it is encouraged for the player to make whatever Role they want, even if it is the highest Strength of Role available. Once they choose to save the Role (assuming they have fulfilled the requirements), they can give it a name and it will be saved so they can access it later in the Role Selection Menu.

Developer Notes

1/15/18: Maybe use XML for character creation as well as with the Glossary? Would have to separate it out by body limb (head, body, armUpper, etc.).

Saving and Loading Data

Saving and Loading Data are Automatic, allowing Players to not worry about if they saved before leaving the game or if the game saved before it crashed. The game saves and loads various data (detailed below). It will save whenever the player confirms a new Role Creation, when they finish a run, when they change their Game Settings (this will be saved via Player Prefs), and partially save when they quit a run from the Pause Menu (it will only save things like Play Time, not things like Void Crystals gained). It will load data from the Main Menu. There should not be any other need for loading data as the game will use a Save Data class similar to Unreal Engine 4's Game Instances where the data is saved in Static Variables which transfer from Scene to Scene.

Data To Save/Load

- Leaderboard Stats (Play Time, Enemies Killed, etc.)
- Leaderboard Status (Rankings)
- Unlocked Roles
- Void Crystal Count Total
- All Created Roles
- Unlocked DLC (If there is DLC)

Leaderboards

There are Local (not Online) Leaderboards that are updated whenever the player finishes a run. These Leaderboards show the player their Overall Stats (such as Play Time, Enemies Killed and Bosses Killed) but also show stats for each of their runs. These individual stats are separated by the Strength of the Roles they ran with and show the Length of the Run, How Many Bosses and Enemies were Killed, Which Role They Played and What Killed Them. These are not Online as we do not have the money to pay for Servers yet. However, that is a possibility for the future.

Gameplay Modes

While currently we wish to get the main gameplay built first, the possibility of having multiple gameplay modes that the player can choose from is an idea we are willing to pursue if time and resources allow. The current idea is to have these be chosen from the Void Run Settings Menu.

Normal

The main gameplay mode where players must chase down the boss through randomly generated environments.

Boss Only

Similar to Normal, except that the only enemies that the player has to deal with is the bosses. No minions will spawn.

Minion Only

Similar to Normal, except that the only enemies that the player has to deal with are the minions. No bosses spawn and the player will never enter a Boss Zone.

Just Run

No enemies spawn. The player just has to run as long as possible. More hazards than normal will spawn and players can take damage from running into environment props.

Multplayer

Only two players can play together at the same time, and they must be in the same room. There is currently no consideration for Online Multiplayer because of Server Costs and complex code. Like many arcade games, the second player can enter the game by hitting the Join Button (Start on a Gamepad, Enter on a Keyboard) when in Character Select.

During the game, it is expected that the two players will remain in the same screen space. However, if for some reason they get separated, the game screen will split horizontally leaving an upper screen and a lower screen. Whoever is higher up will be on the upper screen while the lower player will be on the lower screen.

To compensate for the added player, spawn rates are increased for Minions. For Elite fights, the Elite will have more health.

While it can possibly cause problems between both players, either player can Pause the Game. This allows for either player to stop the game if anything in the real world comes up.

XML Plugin

If needed, this will be a simple Unity Engine Plugin that allows for the creation, saving, loading, editing and deleting of XML files. These XML files will be used to save various data such as Glossary Data, Character Creation Data, Database of Options for Character Creation, and more. The plugin would be designed to assist in the creation of these files in a fast and easy to understand manner.

Using Editor Windows (<https://docs.unity3d.com/Manual/editor-EditorWindows.html>) this plugin will have a pull out window that finds all of the XML files and shows them for easy access to all files. Double Clicking a file name will load that file. In that pullout, there will also be an option to create a new file and to rename files. Other than the pull out, there is a main work area that consists solely of a table. The side labels of the table are top level data tags (Such as the Role Name in the Roles Database, The name of the armor part in the Character Creation Database, and so on). The top labels of the table are the sub-data tags (such as “ARM_Upper_Leg” in the Roles Database and “Sprite” in the Character Creation Database). Above the main area are buttons to save files and load files.