

By
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Game Design Document



BOB THE UNLIKELY



THE
GUILDHALL
AT STU

OLET

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Chapter 1: Overall Game Design / Gameplay

1.1 Focus

Bob, the Unlikely is a demo of a 2D side scrolling action/platform game that will entertain the player with its comedic storyline, sounds, and characters and provide jumping and timing puzzles that will challenge the players throughout the demo version. At the end of each level, Bob will gain a new power that will give a new aspect of game play, and a different feel for each level environment will offer a variety of challenges for the player by allowing a variety of interesting game play. By combining Bob's new powers and various puzzles along with fun game play that anyone can enjoy, Bob the Unlikely is a game for all ages. The game's main objective is to keep players entertained with a wide variety of gameplay that player's can enjoy and by constantly giving player's new aspects of gameplay that is easy to use and is enjoyable. The art of Bob the Unlikely is also made to look like a comic book to keep even the darkest parts of the game fun and enjoyable.

1.2 Story

The game's story begins with Cosmopolis City being constantly being plagued by super villains of every caliber and Captain Macho-man being the one stopping these villains and saving the city from certain doom. On the day the game takes place, Cosmopolis City is being attacked by the evil Nemesis, a being created by twisted terrorist scientist's experiments and escaped only to take revenge on them and the entire city. Nemesis' creation was a particularly painful experience and it fueled him with anger. When he managed to escape, he was filled with rage and killed all the scientists, but that wasn't enough for him. Nemesis was angry that there were no more like him so he set out to infect Cosmopolis City and later the world. His goal is to one day infect the entire planet and turn everyone into mindless zombies that he can control.

Luckily for Cosmopolis City and the rest of the world, Captain Macho-man was there to try and stop Nemesis. The two battled but Nemesis was able to get the better of Captain Macho-man and defeat him. All seemed dark for the city when Captain Macho-man fell and was dieing in an alley, but Captain Macho-man held onto life long enough to give someone else his power. The first person he found was Bob, the least likely person to be named the city's next great hero.

Captain Macho-man motioned for Bob to come closer and told him that he had to don his super suit and become the city's next great hero. With his last dieing breath, Captain Macho-man told Bob that the suit would give him super

powers only if he believed in himself. With a heavy heart from his hero's passing, Bob put on Captain Macho-man's super suit and set out to stop Nemesis from fulfilling his evil plan.

1.3 High-Level Description

Bob the Unlikely plays very much like classic 2D side scrolling games like Super Mario Bros., in that players must complete various jumping obstacles while avoiding enemies. Bob will be able to jump on the streets, window ledges, tops of buildings, and on platforms inside of the sewers while avoiding various obstacles like potholes, pipes, and rats and dodging and killing enemies that shoot projectiles at Bob. Bob has a variety of powers that he gains as he progresses through the game that he has to use to get past each level. He begins play with the jumping ability and the punching ability. He can jump two times his height and his punches do a small amount of damage to enemies. In level two, Bob gains the ability to fly for a small period of time and in level 3 he gains the ability to shoot laser beams from his eyes. Bob's flight time only last for 1 second and must cool down for two seconds afterwards, which is shown on the HUD. His laser ability flies straight from his eyes and has a maximum of one shot on the screen at a time.

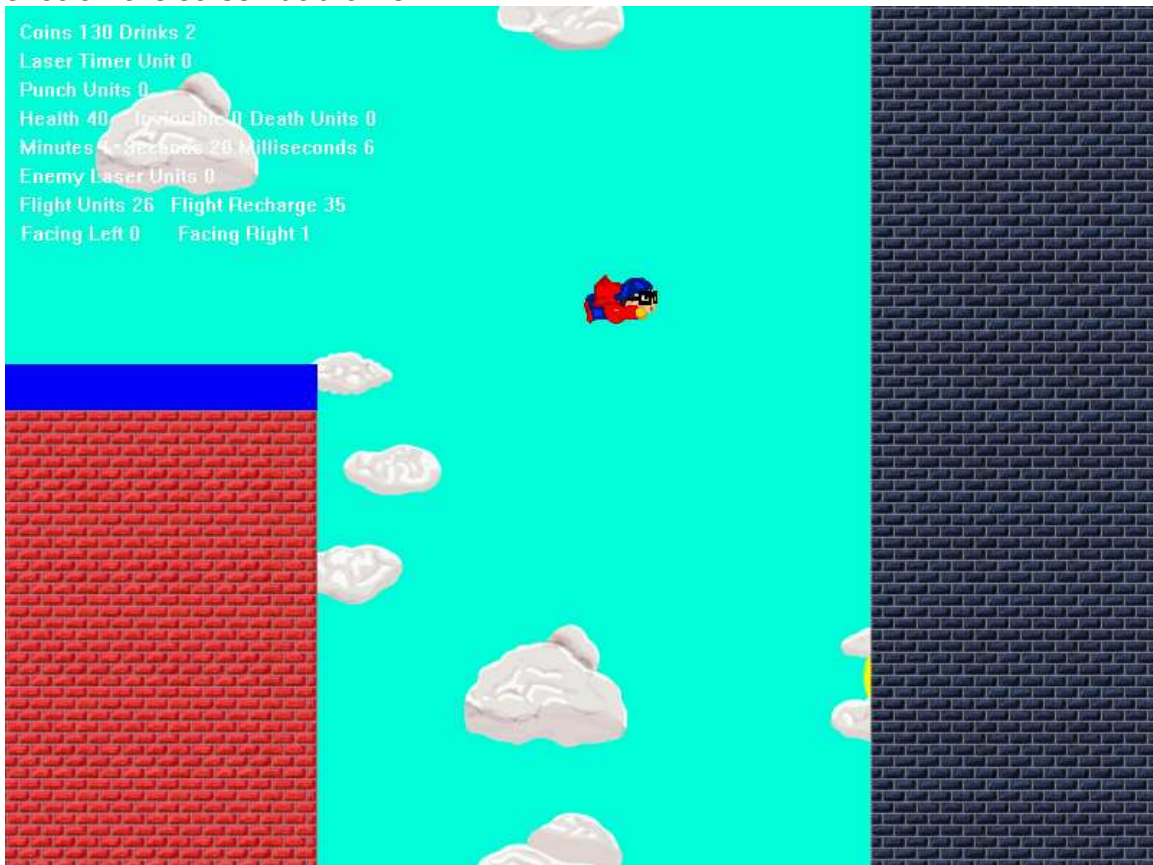


Figure 1.1: Bob flying off a building. Bob can fly for short amounts time allowing him to reach the top of tall buildings.

When the player is playing Bob the Unlikely, they are meant to feel like they are actually playing a comic book. The art is funny and has a cartoon like feel, which should make the comical gameplay enjoyable to the player. On top of that, there are a variety of sounds that will help provide amusing gameplay. Captain Macho-man's spirit will provide Bob with help and encouragement throughout the game, Nemesis will taunt the player and try to make him feel worthless, and Bob will make a variety of comical sounds depending on his situation.

Bob the Unlikely offers three levels for the player to enjoy. The first level will take place on the streets of Cosmopolis City and offer little exploration, but still plenty of excitement. The second level will take Bob to the skies of Cosmopolis City where he must jump from building to building chasing after Nemesis. The final level will take place back on the streets of Cosmopolis City where Bob can now explore the streets, building tops, and sewers as he tries to find Nemesis and stop him from infecting the entire city.

1.4 Gameplay Mechanics

1.4.1 Player's Objective

The player's objective in Bob the Unlikely is to make it to the end of each level and defeat Nemesis at the end of the level. In order to do this, the player will have to guide Bob throughout the level while avoiding obstacles, completing jumping puzzles, and dodging and kill enemies in their way. At the end of each level, they will be presented with a challenge by Nemesis that increases in difficulty each time. Once the player successfully defeats the challenge, they will be presented with a new power and move forward to the next level of the game. The player will not be timed during any of the levels because they will be encouraged to explore the environments in order to gain more money, points, and extra lives. The players will be lead to explore in most cases by enemies and items, but there will also be secret areas that they must find on their own.

1.4.2 Game World Mechanics

Bob the Unlikely offers a wide array of controls for the player to learn, but the most basic of these would be movement and jumping. Bob exists in a 2D world where he can walk left and right by simply using the arrow keys. When just walking, he moves at a constant speed and can still use any of his other abilities while moving. To move up, Bob must jump. Being a platform game, Jumping is a very important feature that the player will have to master. As the

game progresses, the player will gain more abilities to help in their jumping, but Jumping is the most important ability that the player will use to complete the majority of puzzles in the game. The jump height is roughly equal to twice Bob's height, or 128 pixels. Later in the game, Bob will be able to move down by climbing down ladders or flying down by activating special abilities.

Besides jumping, the first ability the player has is Punch. This is another very crucial skill for Bob because it's the only skill that lets him defeat an enemy until the third level. Bob must be standing next to the enemy he wishes to hit in order for the punch to hit it so timing is very crucial when punching. The punch does a small amount of damage to enemies and will take several hits to destroy an enemy.



Figure 1.2: Bob using the punch ability. Bob must be close to the enemy or else his punch will miss.

Once Bob finishes the first level, he gains the flight ability that allows him to fly for a short period of time. When the player presses the fly button, Bob will fly in the direction of the player's choice and then stop after one second. Once Bob stops flying, the player will have to wait two seconds before they can make Bob fly again. Flight becomes important in the second and third levels because it gives Bob access to more areas by being able to go up further and allows him to explore more areas of the maps. Once Bob lands on solid ground after flying, he will be able to run faster for a short period of time.

The last ability that Bob gets is the ability to shoot lasers from his eyes. The lasers will travel away from Bob in the direction that he's facing and will stop once it moves off screen, hits a solid object, or hits an enemy. The amount of damage the laser does to an enemy is far greater so there are limits placed on it. The first limit is that there can only be one laser on the screen at a time, making so that the player must aim more carefully. If the player hits the enemy, they can immediately shoot again, but if they miss, they must wait for the laser to move off screen or hit a solid object.

While exploring the world, Bob also has the ability to pick up coins and buy drinks from vending machines. Coins are strewn throughout the level and are split into four different categories: 5 cent coins, 10 cent coins, 25 cent coins, and Macho-man coins. The first three coins gives Bob money in which he uses to buy Hyper Energy Drinks and the Macho-man coins gives the player an extra life. The money coins are spread throughout the level where the lesser coins are in places that are fairly easy to get to while the 25 cent coins are much harder for the player to obtain. The Macho-man coins are very rare and the player must complete difficult obstacles or find secret areas to obtain these coins.

Once the player has collected 50 cents in coins, they can buy a Hyper Energy Drink from the Vending Machines. Vending Machines are found only in the Streets Level and are spread evenly throughout the level. When Bob encounters one of these machines, he can buy Hyper Energy Drinks. To add an element of difficulty, the player can only hold up to three Hyper Energy Drinks at a time, but the player can use these drinks at any time to gain a small amount of health.

The combat in Bob the Unlikely is fairly simple: use the punch or eye laser ability to defeat enemies. Punching is weaker than the laser and harder to hit the enemy, but it can be used as often as the player wishes without any restrictions. The laser is given to the player later in the game and is considerably more powerful than the punch, but it has limitations: there can only be one laser on the screen at any given time. The only attack the mutant zombies have is the ability to fire projectiles at Bob, but they can fire much more rapidly. There are three different colors of mutant zombies and each one has a different health level and rate of fire. In later levels, enemies are placed so that firing the laser at them will be difficult and the player will have to use the combination of the jump and punch or laser abilities to defeat enemies. Nemesis uses a claw attack that has a large reach and does much more damage than the mutant zombies do. Whenever Bob is damaged, his sprite blinks for a second and he becomes invincible to all enemies and obstacles.

Obstacles such as pipes, air ducts, pot holes, sewer water, sewer water drips, building gaps, and rats also provide an element of difficulty to combat. When the player touches an air duct, pipe, or pot hole they trip and fall, leaving them vulnerable to enemy attacks for a short period of time. If the player touches a rat, Bob will freak out and the player will lose control of Bob for a small amount of time so that he may fall off a ledge and be vulnerable to enemy

attacks. If Bob falls in sewer water or sewer water drips on him, he'll be damaged. In the Sky Level, if Bob falls between buildings, he will immediately die and cause the player to restart the level. This adds an extra amount of difficulty to the level that will cause the player to better time their jumps.

The first level is meant for the player to learn the combat and controls of the game and the next two level tests the player by providing many jumping puzzles. Bob the Unlikely is mainly a jumping puzzle game in that everything worthwhile in the game involves jumping. Enemies and obstacles will be placed so that the player will have to time their jump and flight abilities just right so they don't fall off a ledge or get hit by an enemy.

Bob the Unlikely is meant to be very comical in appearance in gameplay and in the way it's viewed. The player knows they are in a tough situation and the mood of the game may be dark, but the game art and play is still amusing to the player. The design of the environment is very simple in appearance, but there are a large amount of objects to interact with. The player will have to observe what's around them in order to solve the various jumping puzzles in order to progress through the levels or gain access to special areas.

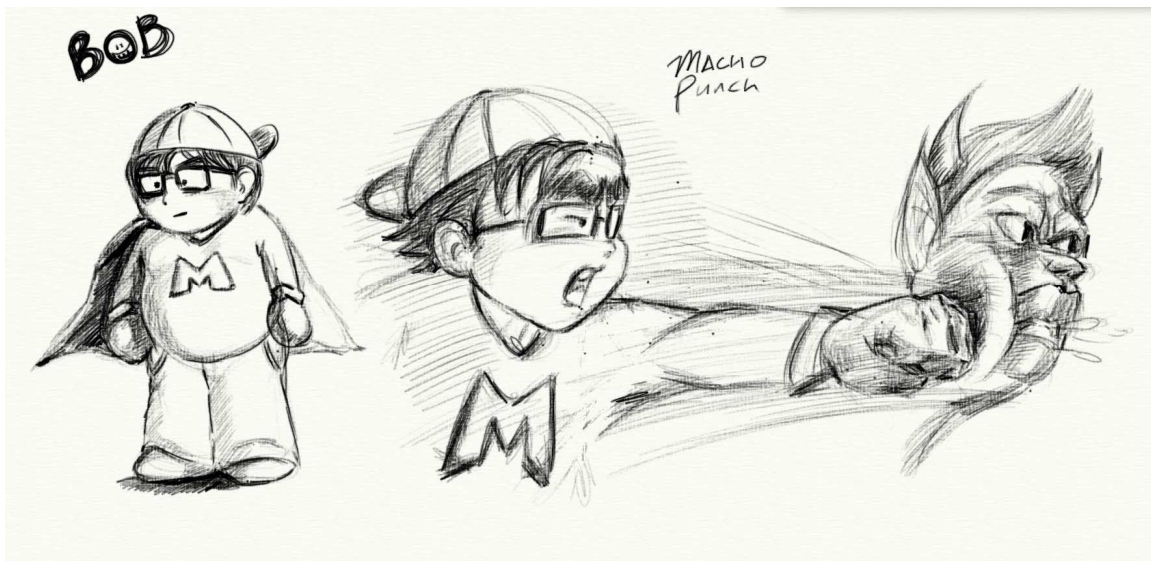


Figure 1.3: Concept art of Bob. Bob is meant to be comical in appearance and even when serious, he still looks funny.

The HUD in Bob the Unlikely provides a large amount of information at a quick glance by making important information viewable by various graphics in the HUD. The player's health is in the middle by a picture of Bob's face and text showing Bob's health percentage much like in Doom. As Bob's health is reduced, the Bob begins to look more sad and beaten up. This is done so that player's can quickly see the state of their health by looking at Bob's face and then the player can know exactly how much health they have left by looking at the percentage. On the left of the HUD is where the player sees how many Hyper Energy Drinks they are carrying and how much money the player has. The drinks are denoted by large graphics that light up for however many drinks the

player is carrying. On the right, the player sees in text how many points and lives they have.



Figure 1.4: The faces of the HUD change as Bob takes more damage. Shown here are the faces from healthy to near death.

1.4.3 Scoring System

The scoring system of Bob the Unlikely was built in to give player’s an aspect of competitive gameplay. As the player collects items, kills enemies, or defeats levels, they gain points. At any time the player can see their score by looking at the HUD. The exact information on the scoring system is presented in the table below.

Table 1.1 Scoring System Action Performed	Points Awarded
Kill an enemy using Punch	50
Kill an enemy using the Eye Laser	40
Collect a Nickel	5
Collect a Dime	10
Collect a Quarter	25
Collect a Macho-man Coin	100
Kill an easy mutant zombie	15
Kill a medium mutant zombie	25
Kill a hard mutant zombie	40
Defeat a boss	150

1.4.4 Controls

The controls of the game are made to be simple and easy to learn. The left and right arrows are the move left and right keys and the up arrow is for jumping. This allows for quick movement and ease of use with the many jumping and timing puzzles. To punch, the player must use the control key and to fire their eye laser, they must press the space bar. There is no auto fire provided to punching and eye lasers, the player must press the key multiple times to fire their laser or punch multiple times. To buy a Hyper Energy Drink

from a vending machine, the player must press shift to make a Hyper Energy Drink come out of the machine. If the player wishes to drink a Hyper Energy Drink, they must press shift when away from the vending machine. To fly, the player only has to press alt once to fly for a second and then use the up, down, left, and right arrow keys to control themselves.

The game's key set is shown below in Table 1.2 Controls.

Table 1.2 Controls	
Key	Action
Left Arrow Key	Move left, fly left
Right Arrow Key	Move right, fly right
Up Arrow Key	Jump, fly up
Space-bar	Fire eye-laser
Ctrl	Punch
Shift	Drink a Hyper Energy Drink, Buy a Hyper Energy Drink
Alt	Fly

1.5 Game Progression

The game starts out with Bob on the city streets of Cosmopolis City when he's just learning powers. The player only has a short distance to travel in this level to reach their destination and the challenge isn't too great. The first level is made to teach the player the game and to give them a general feel for the game, not to challenge them. There will be jumping puzzles in this level, but nothing a new inexperienced cannot easily handle. The enemies in the first level will consist mainly of the weakest zombies with a few of the medium zombies, but they will still be in places that will be easy for the player to kill. When the player comes to the end of the level, they will meet Nemesis who refuses to take Bob seriously. Nemesis will taunt Bob and send several waves of mutant zombies to attack Bob. Each wave will consist of several weak zombies and a medium zombie. Bob will have to use jump and punch to avoid the zombies. Each wave will add more zombies than the previous wave and the last wave will include one hard zombie. Once Bob defeats all the zombies, Nemesis will retreat to the sky and Bob will follow him, taking the player to the Sky Level.

The second level of Bob the Unlikely takes place in the skies and building tops of Cosmopolis City. This is the most technically difficult of the levels being that it has areas that cause immediate death. Here, Bob will be chasing Nemesis from building to building while trying to avoid obstacles and enemies. The player will be able to make Bob fly and will be able to jump on ledges and the tops of buildings to explore the areas. The player will have to be careful to avoid the

obstacles and placed enemies so that he doesn't fall off the building and die. Once Bob catches up with Nemesis, Nemesis will fight Bob himself, though he still goes easy on Bob. Once the player defeats Nemesis, he reveals that he plans to infect the entire city and retreats back to the streets. Bob then follows Nemesis back down to the streets and learns that he can shoot lasers out of his eyes.

The third level takes place back on the streets of Cosmopolis City and backtracks over the first level. This time through the level, Bob will be able to fly to building tops, jump on window ledges, and climb down into the sewers. This gives the player a very large opportunity to explore the city and very many rewards for exploring. While the Sky Level was meant to test the player's skills, this level is meant to let the player explore. This level isn't as hard as the previous level, but it still presents a challenge to the player with the large amounts of obstacles. Once the player finds Nemesis in the sewers, Nemesis arms the bomb that will infect the city and then starts to fight Bob. The player has one minute to kill Nemesis before the bomb explodes. If time runs out, the game will be over, but if the player defeats Nemesis before the time is up, Bob will disarm the bomb and save the city.

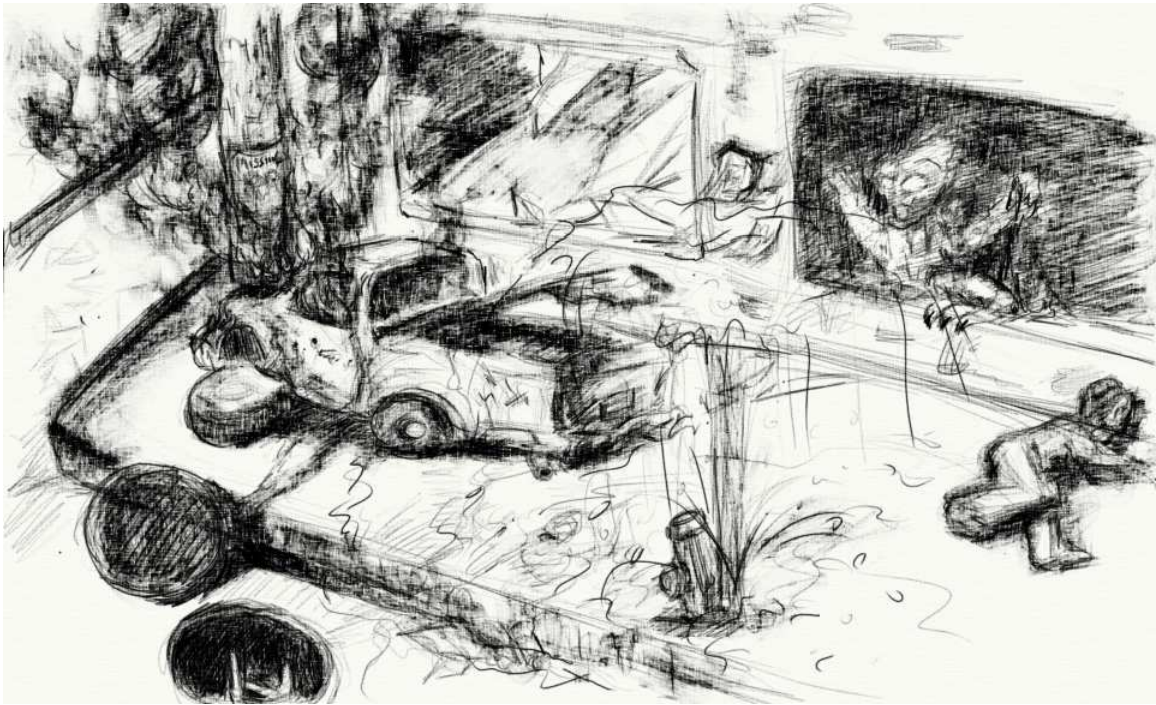


Figure 1.5: Concept art for the Streets Level Part II. The slums of Cosmopolis City are supposed to look chaotic and full of confusion after Nemesis attacks the city

1.6 Tutorial

The tutorial offers a quick and easy way to teach the player the controls of the game. The player either has the option to enter the quick tutorial that shows them the controls or to enter the full tutorial that will take them through a short level that slowly teaches them each gameplay feature of the game. The long tutorial will have text boxes and sound files of Bob, Nemesis, and Captain Macho-man telling the player how to use the various gameplay features. At any time the player may quit the tutorial by pressing 'Q' or restart the tutorial by pressing 'R'.

The first section of the long tutorial will teach the player how to move and jump. The player will be asked to walk around and jump on various window ledges. Once the player feels comfortable jumping and moving, the tutorial will tell the player to continue on to the next section.

Here, the player will learn about the HUD and what the different graphics mean. The player will also learn about punching and firing lasers. There will be several inert zombies that the player can practice each skill on one, and when the player defeats those zombies, the player will move onto the next section.

In the next section, Bob learns about items and acquiring coins. The player will be shown each coin and told what each one does. Once the player learns about the coins, the player will be shown a vending machine and given the opportunity to use the vending machine. Once the player uses the machine, the tutorial will then show the player how to use the health drink.

The next and final section teaches the player about the flight ability. Here, the player is told how to fly and is informed that the flight ability must be recharged for a short amount of time each time they use it. After that, the player is then taken back to the main system menu, which is explained in full in sections 1.7 System Menus and 5.1 User Interface.

1.7 System Menus

The system menu's of Bob the Unlikely consist of Play, Tutorial, and View Credits. The player uses the up and down arrow keys to select the different options and the enter key to select the menu options. The play option takes the player into the background story of the game and then straight into the game. The Tutorial option will show the player to another screen that shows them two options: Quick Tutorial and Long Tutorial. The Quick Tutorial will simply show the player a list of the controls and then let them go back to the main menu screen. The Long Tutorial is more in depth and takes the player to a level that takes them through step by step of each gameplay feature. The last option, View Credits, takes the player to the credits screen

Chapter 2: Game World

2.1 Game Layout

All material present in 2.1 Game World can be found in Level Design Documents in Appendix A, Appendix B, and Appendix C and explained in more detail.

2.1.1 Architecture Style

Bob the Unlikely takes place in Cosmopolis City, a typical large metropolitan city. The city used to be full of crime until Captain Macho-man came to the city and started protecting the city. The sections of the city the game takes place are the city slums and the tops of huge skyscrapers. The city streets have graffiti on the walls, old cars, and trash in the streets. As the game progresses, the player starts seeing missing posters, blood on the walls, and cars on fire telling the player that there is chaos in the streets. In the sewers, it is dark and filled with mossy bricks and walls.

The architecture of the sky level is the top of buildings in a major city. The tops of the buildings have pipes and air ducts sticking out of them that Bob can trip over and ledges on the buildings that Bob can jump on.



Figure 2.1: Concept art for the building tops. In the sky level, Bob will be able to see the city background far behind him.

2.1.2 Materials Used

The materials used are red, light gray, and dark brick for the buildings, concrete for the sidewalks, asphalt for the roads, and dark mossy brick for the sewers.

2.1.3 Environment

The environments in Bob the Unlikely are the Cosmopolis city slums, dark sewers, and the tops of large buildings. The game starts during the day, but during the Sky Level the sky starts turning red and by the third level, it's evening. The streets, sewers, and buildings are filled with mutant zombies, graffiti, and signs of chaos. Inside the sewers it's dark and the only light comes from a strange glowing moss that only barely shows where Bob can and cannot step. The large building tops are also filled with mutant zombies and the sky changes color as Bob progresses to the left.



Figure 2.2: Concept art of Bob in the sewers. The sewers are filled with many obstacles for Bob to overcome, including contaminated water that can damage Bob if touched and mice that freak out Bob

2.1.4 Mood

The Mood of Bob the Unlikely starts as bright and happy with a fairly slow feel, but as the game progresses, the general easy feeling the player should have starts changing as the game environment starts changing. By the end of the first level, the game has already taken a darker turn by showing the chaos on the streets, blood on the walls, and missing posters strewn throughout the city. In the sky level, the mood becomes even darker having the sky growing darker as the player progresses through the level. When the player starts the third level, it is evening and they know the entire city is about to be turned into mutant zombies. By this time, the easy feeling should be completely gone and the player should feel rushed as they search the city for Nemesis.

2.1.5 Emotion

The emotion of the game starts out as confused as the player sees what's happening on the streets. When the player makes it to the Sky Level, they should have a feeling of suspense as they chase after Nemesis. By the third level, the player should have a feeling of impending doom. The player knows there's a bomb that could go off at any second and if that bomb goes off, the entire city is doomed.

2.1.6 Pacing

The pacing of Bob the Unlikely starts off very slow, giving the player a chance to get a feel for the game. Beginners will be able to hone their skills here by completing simple jumping puzzles and more experienced players will be challenged by trying to get the highest score possible. The pacing in the second level is much different from the first. The level has series of cool easy spots followed by hot and harder spots. The easier spots will be on top of the buildings while the harder spots will be the areas between the buildings where the player will have to complete difficult jumping puzzles. The final level of the game is a mix of easy, medium, and hard spots. The medium difficulty spots will be on the city streets, the easy difficulty spots will be on top of the buildings containing jumping puzzles, and the hardest spots will be inside the sewers.

2.1.7 Lighting

The lighting of Bob the Unlikely starts off as bright and sunny, but as the player progresses, the game becomes darker just like the mood. When the player enters the sewers, it is almost completely dark.

2.1.8 Visual Impact

The visual highlights of Bob the Unlikely will be the backgrounds. Everything starts off sunny, but as the player plays the game, things become darker and the sky tells the player how they should be feeling. In certain points of the Streets Level, the player catches a clear glimpse of the sun and the sky setting on the city background.

2.2 World Objects

All material present in 2.2 World Objects can be found in Level Design Documents in Appendix A, Appendix B, and Appendix C and explained in more detail.

2.2.1 List of Map Elements for Streets Level Part I

Below is a list of elements in Bob the Unlikely found in the Streets Level Part I (level 1).

Asset	Tile s	Pixel WxH	Naming Convention	Description
Dime	3	16x16	ts_items.bmp	Dime
Easy Mutant Zombie	14	64x64	ts_characters_zombie_easy.b mp	Easy difficulty mutant zombie
Hard Mutant Zombie	14	64x64	ts_characters_zombie_hard.b mp	Hard difficulty mutant zombie
Hyper Energy Drink	1	16x16	ts_items.bmp	Hyper Energy Drink that comes out of vending machines
Macho-man Coin	3	16x16	ts_items.bmp	Macho-man coin

Medium Mutant Zombie	14	64x64	ts_characters_zombie_medium.bmp	Medium difficulty mutant zombie
Nemesis	30	128x128	ts_characters_nemesis.bmp	Nemesis (boss)
Nickel	3	16x16	ts_items.bmp	Nickel
Potholes	1	16x16	ts_obstacles.bmp	Potholes in the street
Quarter	3	16x16	ts_items.bmp	Quarter
Vending Machine	12	16x16	ts_deco.bmp	Vending Machine

2.2.2 List of Elements on Sky Level

Below is a list of elements in Bob the Unlikely found in the Sky Level (level 2).

Table 2.2 Sky Level World Objects				
Asset	Tiles	Pixel WxH	Naming Convention	Description
Air Ducts	1	16x16	ts_obstacles.bmp	Air Ducts on roofs
Dime	3	16x16	ts_items.bmp	Dime
Easy Mutant Zombie	14	64x64	ts_characters_zombie_easy.bmp	Easy difficulty mutant zombie
Hard Mutant Zombie	14	64x64	ts_characters_zombie_hard.bmp	Hard difficulty mutant zombie
Hyper Energy Drink	1	16x16	ts_items.bmp	Hyper Energy Drink that comes out of vending machines
Macho-man Coin	3	16x16	ts_items.bmp	Macho-man coin
Medium Mutant Zombie	14	64x64	ts_characters_zombie_medium.bmp	Medium difficulty mutant zombie
Nemesis	30	128x128	ts_characters_nemesis.bmp	Nemesis (boss)
Nickel	3	16x16	ts_items.bmp	Nickel
Quarter	3	16x16	ts_items.bmp	Quarter

2.2.3 List of Elements on Streets Level Part II

Below in Table 2.3 Streets Level Part II World Objects, is a list of elements in Bob the Unlikely found in the Streets Level Part II (level 3).

Table 2.3 Streets Level Part II World Objects				
Asset	Tiles	Pixel WxH	Naming Convention	Description
Dime	3	16x16	ts_items.bmp	Dime
Easy Mutant Zombie	14	64x64	ts_characters_zombie_easy.bmp	Easy difficulty mutant zombie
Hard Mutant Zombie	14	64x64	ts_characters_zombie_hard.bmp	Hard difficulty mutant zombie
Hyper Energy Drink	1	16x16	ts_items.bmp	Hyper Energy Drink that comes out of vending machines
Macho-man Coin	3	16x16	ts_items.bmp	Macho-man coin
Medium Mutant Zombie	14	64x64	ts_characters_zombie_medium.bmp	Medium difficulty mutant zombie
Nemesis	30	128x128	ts_characters_nemesis.bmp	Nemesis (boss)
Nickel	3	16x16	ts_items.bmp	Nickel
Potholes	1	16x16	ts_obstacles.bmp	Potholes in the street
Quarter	3	16x16	ts_items.bmp	Quarter
Sewer Water	4	16x16	ts_obstacles.bmp	Water in the sewers
Vending Machine	12	16x16	ts_deco.bmp	Vending Machine
Water Drip	4	16x16	ts_obstacles.bmp	Dripping water in the sewers

Chapter 3: Game Characters

3.1 Characters

3.1.1 Bob the Unlikely (Main Character)

Bob is a less than normal person put in a far from normal situation. Bob likes to spend most of his days reading comic books and dreaming of being a super hero. He has always felt different and dreamed of being something special but knows that he is just a fat kid who spends all of his time reading comic books. On this incredible day, he was on his way home from school and happened to find Captain Macho-man dying in the alley. By meeting Captain Macho-man, Bob is able to realize his latent powers and save the city from Nemesis and his mutants.

When Bob wears Captain Macho-man's super suit, he still doesn't look like a super hero, but it makes him feel like one. Since Bob is so fat, the suit still seems to fit quite tightly on him and makes him look odd. On top of that, Bob must still wear his thick glasses. Even though Bob is supposed to be a super hero now, he still looks very comical.

Also, Bob is claustrophobic and is absolutely scared to death of small animals like rats. When he must enter the sewers, these factors come into play and he often "freaks out". Also, Bob is very clumsy and often doesn't look where he's going. While walking on the building tops and city streets Bob can trip potholes, pipes, and air ducts.



Figure 3.1: Tile set for Bob. Bob has many different possible animations so he needs a very large tile set to allow for every possible action.

3.1.2 Nemesis (The Boss)

Nemesis was made from terrorist hired scientist. The scientists performed disfiguring and painful DNA experiments that turned Nemesis into the evil creature that he is today. The scientists inadvertently made Nemesis into an incredibly potent but horribly uncontrollable weapon by giving bullet proof scales, large blades between his shoulder blades, and large gargoyle like wings. He also has infrared vision and can see in dark places like sewers. The scientist finally gave him devastating dragon-like claws that can rip through even the toughest materials.

One of the side effects of Nemesis' creation is that his bite can turn people into mindless mutant zombie like slaves. These slaves will obey Nemesis' every command and will follow him to the death. The experiments done on Nemesis filled him with physical and emotional pain that swelled up in him until he was ready to explode. He finally turned on the scientists and killed them all and the terrorists shortly after. After killing the people that made him what he was, he was still filled with rage. In order to fulfill his rage, Nemesis devised a plan to turn all of Cosmopolis City and eventually the world into his mindless slaves by setting off a bomb that will leak into the water system of Cosmopolis City and all the cities near it.



Figure 3.2: Sprite for Nemesis. Nemesis is supposed to look scary and very much larger than Bob.

3.1.3 Mutant Zombies (Enemies – All Levels)

The mutant zombies were once normal people that lived in Cosmopolis City but they were bitten by Nemesis and turned into evil mutant zombies. Nemesis' twisted DNA infected their own DNA and their bodies became horribly disfigured just as Nemesis' is and they become completely under his control.

The mutant zombies very much resemble zombies one might find in a zombie movie. Nemesis' DNA makes their skin turn to a greenish color, they lose most of their hair, and their eyes bulge out of their head. Their clothes are dirty and torn due to the destruction they're causing on the city and from wandering around the sewer. They also have sharp claws much like Nemesis and can spit poisonous phlegm.

The mutant zombies come in various difficulty levels denoted by their color of clothes.



Figure 3.3: Sprite art for a mutant zombie. The mutant zombies will have different color shirts on depending on how difficult they are.

3.1.4 Mutant Rats (Enemies/ Obstacles – Sewers)

The rats of Cosmopolis City live in the sewers beneath the street and love to scurry about the feet of people unfortunate enough to enter them. By being so close to the time bomb that Nemesis made, some of the rats have mutated and become much larger. If Bob encounters any of these, he will freak out for a short amount of time and become vulnerable to attack. Though Bob really hates rats, he cannot bring himself to attack the rats because attacking them would mean concentrating on them and frankly, the rats just give Bob the hibly-jibblies.

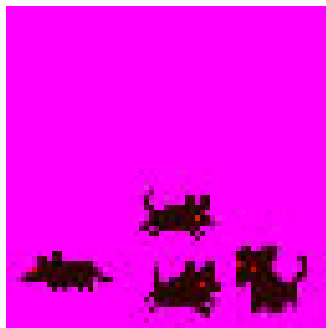


Figure 3.4: Sprite art of a group of mutant rats. The mutant rats are too small for Bob to hit even if he wanted to so they cannot be destroyed.

3.2 Weapons

3.2.1 Macho Punch (All levels attack move)

The Macho Punch is the signature move of Captain Macho-man that makes his hand glow in a red fiery energy that centers all of his energy on his hand to exert a large amount of force that could move the weight of 5 elephants. When Bob puts on Captain Macho-man's gloves, he gains this power and can use it at all.



Figure 3.5: Bob's punch is his only weapon in the first and second levels so he must learn to use it well. If Bob isn't close enough to the enemy when he punches, his punch won't land.

3.2.2 Macho Jump (All levels)

By putting on Captain Macho-man's super suit, Bob gains the ability to jump higher than any normal person. The Macho Jump allows Bob to jump double his height so that he can jump up to window ledges and jump between buildings.



Figure 3.6: Jumping is an important ability in Bob the Unlikely. There are many jumping puzzles that involve precision jumping.

3.2.3 High Flight (Levels 2 and 3)

Captain Macho-man's super suit has many special abilities and learning all of these abilities can be a lot to take in at once. After wearing the super suit for a while, Bob realizes that the cape gives him the power of flight. After Bob completes level 1, he realizes he can fly for short periods of time, though he must spend a few seconds on the ground between flights.

The cape allows him to fly for 1 second in any direction. After he has flown for 1 second, he must let the flight ability cool down for 2 seconds. The

flight ability is a handy way to get to otherwise inaccessible areas, but it does have its drawbacks. He must be careful to time his flights right or he could fly off the side of a building, onto an obstacle or on top of an enemy laying in wait for him.



Figure 3.7: A picture of the flight HUD icon. Flight is another important ability for Bob because it allows him access to many different areas and to explore Cosmopolis City.

3.2.3 Laser Beams (Level 3 attack move)

The last attack that Bob learns from Captain Macho-man's super suit is the ultra powerful eye laser. By concentrating, Bob is able to focus all of his energy into eyes and shoot powerful thin lasers from eyes. These lasers do an incredible amount of damage to enemies, but must be used with caution. There can only be one laser beam on the screen at a time and a miss means that Bob cannot shoot his laser for a short amount of time.



Figure 3.8: A picture of the eye laser HUD icon. The eye laser allows Bob to shoot powerful laser beams from his eyes to do large amounts of damage to enemies.

3.3 Items

3.3.1 Vending Machine

Vending Machines are strewn throughout the Streets Level and dispense Bob's favorite drink, the Hyper Energy Drink. In order to use the vending machine, he must collect 50 cents by picking up coins in the levels.

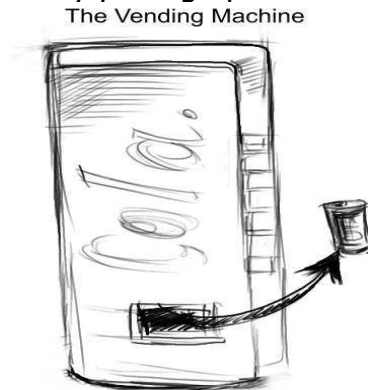


Figure 3.9: Concept art for the vending machine. The vending machine dispenses the Hyper Energy Drinks which allows Bob to regain health.

3.3.2 Hyper Energy Drink

The Hyper Energy Drink is the sweet glorious nectar for any comic book nerd like Bob. By drinking it, he gains the energy to stay up for hours on end to read the adventures of his hero, Captain Macho-man. When Bob drinks a Hyper Energy Drink, some of his energy is restored. Bob can carry up to three Hyper Energy Drinks at any given time and he can use one whenever he wants.



Figure 3.10: Sprite art for the Hyper Energy Drink. The Hyper Energy Drink comes from vending machines and gives Bob health.

3.3.3 Coins

Coins can be found throughout all three levels and are used to buy Hyper Energy Drinks from vending machines. The three types of coins Bob can pick up are nickels, dimes, and quarters.



Figure 3.11: The coins give Bob money so that he can buy valuable Hyper Energy Drinks from the Vending Machines.

3.3.4 Macho Coins

These rare hard to get coins are placed in special hidden areas or difficult areas throughout the levels. When Bob picks up one of these coins, he gains an extra life.



Figure 3.12: Sprite art for the Macho-man coin. When a player picks up a Macho-man Coin, they gain an extra life.

3.4 Obstacles

3.4.1 Potholes (Ground – Level 1 and 3)

The streets of the Cosmopolis City slums are filled with potholes and if Bob isn't careful he'll trip on them. When Bob collides with a pothole he falls and cannot move for a short period of time making him prone to enemy attacks.

3.4.2 Pipes/Air Ducts (Sky Level – Level 2)

The tops of buildings Cosmopolis City are filled with pipes and air ducts that he can easily trip on. If clumsy Bob collides with a pipe or air duct he falls and cannot move for a short period of time making him prone to enemy attacks.

3.4.3 Sewer Water (Sewer – Level 3)

As if the water in the sewers of Cosmopolis City wasn't nasty enough, some of the water near the Nemesis' time bomb has been contaminated and will hurt Bob if he steps in it.

3.4.4 Water Drip (Sewer – Level 3)

The pipes in the slums sewers aren't what they use to be and sometimes they leak water. Sadly, some of these pipes have contaminated sewer water in them and will damage Bob if any of them leak water on Bob.



Figure 3.13: Concept art for the obstacles found in Bob the Unlikely. Whenever a player touches one of the obstacles, Bob will fall, freak out, or get damaged.

Chapter 4: Game Textures and backgrounds

4.1 Textures

4.1.1 City Textures

The city is made up of a collection of base textures found in ts_buildings.bmp. These textures are meant to be only a base for buildings and to be decorated on another layer. The list of textures found in ts_buildings.bmp can be found below.

Table 4.1: Building Textures		
Animation	Description	Tiles
Back Sidewalk	Background sidewalk	1
Dark Brick Buildings	Building made of dark brick	9
Front Sidewalk	Foreground Sidewalk	1
Gray Brick Buildings	Building made of gray brick	9
Ladder	Ladder going into sewers	3
Red Brick Buildings	Building made of red brick	9
Sewer	Sewer foreground texture	16
Streets	City streets	2



Figure 4.1: The buildings tile set. The basic building tiles are all placed in a single tile set so that they may be decorated on another layer.

4.1.2 Decoration Art

The decoration art goes on top of tiles found in the ts_buildings.bmp tileset found in section 4.1.1 City Textures and is found in ts_deco.bmp. This is the art that makes each building look different. The list of textures found in ts_deco.bmp can be found below.

Table 4.2: Decoration Art		
Animation	Description	Tiles
Small Windows	Small windows of a building	4
Large Windows	Large windows of a building	9
Window with eyes	Small windows with moving eyes	12
Small Poster	Small missing person poster	3
Medium Poster	Medium missing person poster	3
Large Poster	Large missing person poster	3
Nickel	Nickel coin	3
Dime	Dime coin	3
Quarter	Quarter coin	3
Vending Machine	Vending Machine	18
Hyper Energy Drink	Hyper Energy Drink	2
Sewer Grate	Sewer grate that fits on background sidewalk	1
Lamp Post	Lamp post that fits on the streets	5
Bloody Wall	Blood that fits on a brick wall	3
Dirty Wall	Dirt that fits on a brick wall	3
Graffiti	Graffiti that fits on a brick wall	3
Trash Bin	Trash bins that are on sidewalks	4

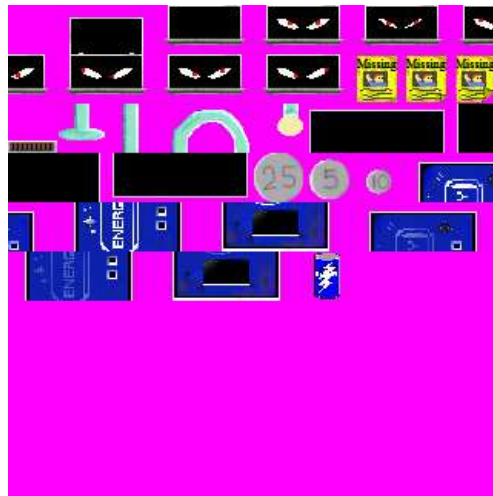


Figure 4.2: The decoration tile set. These tiles are placed on top of other tiles to decorate the base tiles and make them seem different.

4.1.3 Obstacle Art

The obstacle art of Bob the Unlikely is found in `ts_obstacles.bmp` and consists of potholes, air ducts, sewer water, water drips, rats, and pipes. These tiles can be placed on the streets, building tops, and inside of the sewers. A complete listing of the tiles found in `ts_obstacles.bmp` can be found below.

Table 4.3: Obstacles		
Animation	Description	Tiles
Air Ducts	Air ducts sticking out of building tops	2
Potholes	Potholes in the city streets	1
Sewer Water	Contaminated sewer water in the sewers	9
Water Drip	Contaminated dripping water in the sewers	9
Rats	Mutated rats in the sewers	3
Pipes	Pipes sticking out of building tops	2

4.2 Backgrounds

4.2.1 Sky Backgrounds

The sky backgrounds are found in `ts_background_sky.bmp` and contain all the tiles for the day and evening sky. A complete list of tiles found in `ts_backgrounds_sky.bmp` can be found below.

Table 4.4: Sky Backgrounds		
Animation	Description	Tiles
Day Sky	Day sky, including blank sky, clouds, and the sun	10
Evening Sky	Evening sky, including blank sky, clouds, and the sun	10

4.2.2 Sewer Backgrounds

The sewer backgrounds are found in `ts_background_sewer.bmp` and contain all the tiles for the sewers. A complete list of tiles found in `ts_background_sewer.bmp` can be found below.

Table 4.5: Sewer Backgrounds		
Animation	Description	Tiles
Sewer	The basic background for the sewers	8
Passageway	A darkened passageway in the sewer	2
Water Pipe	A large open pipe	1



Figure 4.3: Sky background tile set. Some of the tiles for the day sky background that goes behind all of the other layers.

Chapter 5: User Interface and HUD

5.1 User Interface

The user interface for the game is simple and gives the player 3 main options: Start Game, Tutorial, and View Credits. If the player chooses Start Game, they are immediately taken to the game's back story and then they start playing the game. When the player chooses Tutorial, two new options appear for the player to choose: Quick Tutorial and Long Tutorial. The quick tutorial will give the player the controls of the game and then return them to the menu screen. If the player chooses the long tutorial, they are taken to a longer, more in depth tutorial. If the player chooses View Credits, they are taken to a credits screen.

5.2 HUD

The HUD of Bob the Unlikely is made to show a large amount of information at a quick glance and more detailed information if the player chooses to look at it longer. On the left of the HUD, the player sees how much money they have gathered and how many Hyper Energy Drinks they're holding. As the player collects the Hyper Energy Drinks or uses them, pictures of Hyper Energy Drinks appear and disappear.

The middle of the HUD shows Bob's health status and the status of his flight and eye laser ability. As the player takes more damage, Bob's face becomes more and more beat up, as shown in figure 1.4, and below the face, a numerical representation of Bob's health is shown. On either side of Bob's face, he can see the status of his flight and laser powers. If they are ready to be used, the pictures will light up.

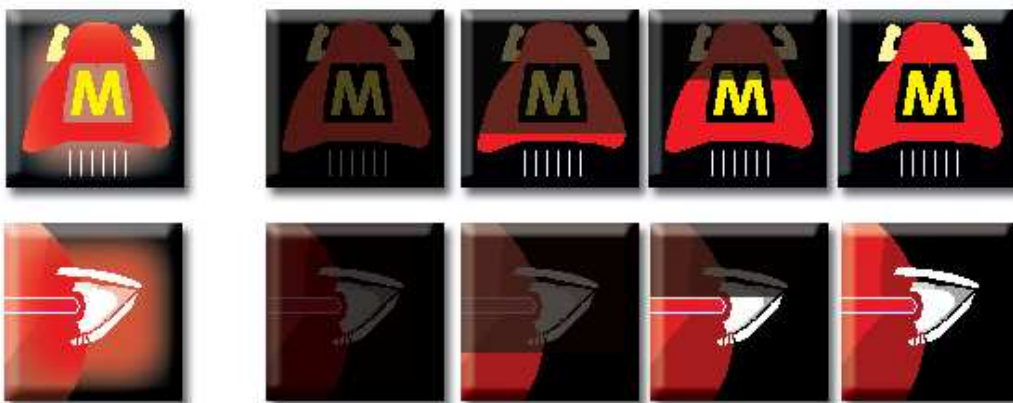


Figure 5.1: The laser and flight recharge icons. As the ability recharges, it starts to become brighter letting the player know the ability is recharging.

The right of the HUD shows Bob's score and how many lives he has. The score, explained in section 1.4.3: Scoring, in the HUD increases as the player collects coins strewn throughout the level. The player is shown how many lives they have in a graphical representation by little faces of Bob.



Figure 5.2: The HUD quickly shows a large amount of information to the player so the player doesn't have to spend large amounts of time looking for information about their current status.

Chapter 6: Sound Effects and Music

6.1 Character Sound Effects

6.1.1 Bob's Sounds

Below is a list of sounds that are connected with the Bob character.

Table 6.1 Bob's Sounds		
Filename	Description	Variations
snd_bob_breath_xx.wav	Bob's panting sound	3
snd_bob_damage_xx.wav	Bob's sound when damaged	4
snd_bob_freak_01.wav	Bob's freak out sound	1
snd_bob_fall_01.wav	Bob's fall sound	1
snd_bob_death_01.wav	Bob's sound when he dies	1
snd_bob_fly_xx.wav	Bob's sound when he takes off	4
snd_bob_drink_01.wav	Bob's sound when drinks a Hyper Energy Drink	1
snd_bob_land_xx.wav	Bob's sound when he lands	2
snd_bob_jump_01.wav	Bob's sound when he jumps	1
snd_bob_laser_01.wav	Bob's sound when he shoots a laser	1
snd_bob_power_01.wav	Bob's sound when he learns a new power	1
snd_bob_punch_01.wav	Bob's sound when he punches	1
snd_bob_walk_01.wav	Bob's walking sound	1

6.1.2 Nemesis' Sounds

Below is a list of sounds that are connected with the Nemesis character.

Table 6.2 Nemesis' Sounds		
Filename	Description	Variations
snd_nemesis_death_01.wav	Nemesis' sound when he dies	1
snd_nemesis_dmg_xx.wav	Nemesis' sound when damaged	2
snd_nemesis_fly_01.wav	Nemesis' sound when flying	1
snd_nemesis_jump_01.wav	Nemesis' sound when jumping	1
snd_nemesis_laser_01.wav	Nemesis' sound when shooting his laser	1

snd_nemesis_punch_01.wav	Nemesis' sound when punching	1
snd_nemesis_laugh_xx.wav	Nemesis' sound when laughing	3
snd_nemesis_walk_01.wav	Nemesis' sound while walking	1

6.1.3 Enemy Sounds

Below is a list of sounds that are connected with enemies found in Bob the Unlikely.

Table 6.3 Enemy Sounds			
Character	Filename	Description	Variations
Mutant Zombie	snd_zombie_attack_xx.wav	Zombie's attack sound	3
Mutant Zombie	snd_zombie_death_01.wav	Zombie's sound when killed	1
Mutant Zombie	snd_zombie_damage_xx.wav	Zombie's sound when damaged	2
Rat	Snd_rat_squeak_01.wav	Rat's squeak	1

6.2 Music

The background music of Bob the Unlikely is meant to reflect the general feel of the game. It's going to be fast paced music that has a cartoon or comic feel to it. As the player progresses through each level, the music will reflect the mood of that level while still trying to sound fast and have a cartoon feel.

Table 6.4 Background Music	
Filename	Description
snd_bmg_city_01.wav	City background music
snd_bmg_sewer_01.wav	Sewer background music
snd_bmg_sky_01.wav	Sky background music
snd_bmg_story_01.wav	Story background music
snd_bmg_boss_01.wav	Boss background music

Chapter 7: Technical Specifications

7.1 Technical Specifications

Bob the Unlikely was made using Scrolling Game Development Kit version 1.4.5, which is further explained in section 7.2 About Scrolling Game Development Kit, and has the same technical specifications as Scrolling Game Development Kit. The technical requirements are listed below in table 7.1 Technical Requirements. These are only the suggested requirements and the specs the Bob the Unlikely was developed on and tested on.

Table 7.1 Technical Requirements	
Video	Direct X 5.0 or better
Video Card Support	800x600 24 bit color or better
Sound	All sound cards supported by Windows Media Player
Operating System	Windows XP Professional/ Home
Processor Speed	2.00 GHz or better
Ram	1 Gig or better

7.2 About Scrolling Game Development Kit

The scrolling Game Development Kit ("GameDev") is a free / freeware open source tool for 2-D game development. It is designed for the Windows 9x/DirectX platform, and targeted at people spanning a range of skill levels. It can be used by the beginner to become familiar with the structure of computer games and to create complete games that don't require any coding. It also has applications for the experience developer who perhaps simply wants to use the program to draw graphics or define maps. And in the middle there are applications for creating a game and controlling it through scripting.

Gamedev was created by Benjamin Marty and further information can be found at <http://gamedev.sourceforge.net/>.

Appendix A: Streets Level Part I LDD

Bob the Unlikely Streets Level Part I

Level Designed by Tommy Westerman

Document Created On: 8/19/05
Level Finished By: 8/29/05

Chapter A1: Maps

A1.1 Map Side View

This is the side view and primary view of the player for the first level, Streets Level Part I. Streets Level Part I is actually a part of a larger level, but the player will only have to interact with a small portion of the level this time through it.

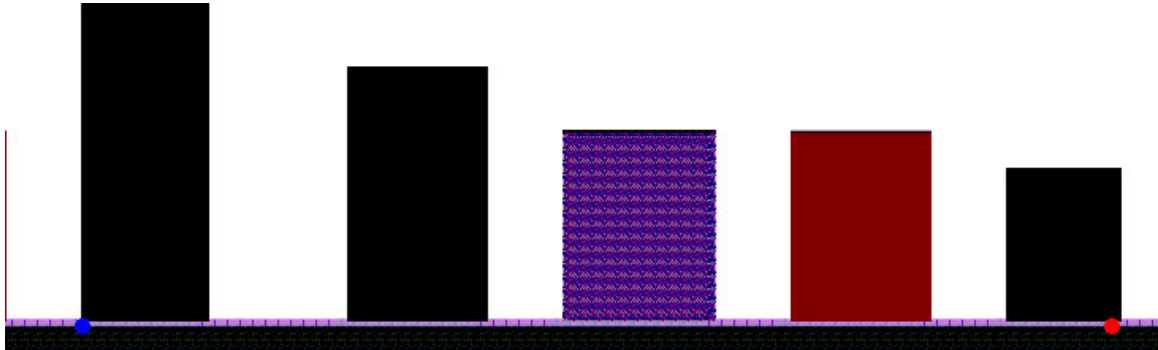


Fig A1.1: Streets Level Part I Side view with player start and player end.

A1.2 Critical Path

Since this is meant to be a simple level that teaches the player the feel of the game, the critical path is also very simple. The player can interact with window ledges, but the player mainly just progresses to the right.

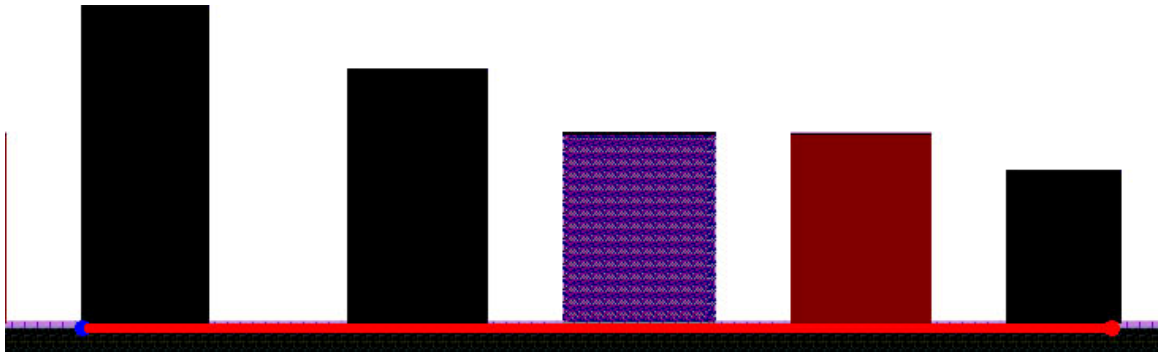


Fig A1.2: Critical Path of Streets Level Part I

Chapter A2: Level Design

A2.1 Overview

In the first level Bob is just learning his new powers and must find Nemesis at the end of the level. On the way to Nemesis, Bob must punch his way through mutant zombies and avoid obstacles. Once Bob meets Nemesis, Nemesis refuses to take Bob seriously and won't fight Bob himself and instead sends several waves of mutant zombies after him.

A2.2 Player's Focus

The player's focus in this level is to meet Nemesis, defeat several waves of mutant zombies, and follow Nemesis to the building tops.

A2.3 Level Objectives

- Meet Nemesis
- Defeat his mutant zombies
- Learn how to fly

Chapter A3: Look and Feel

A3.1 Architecture Style

The architecture of the Streets Level is buildings one would find in the slums of a major city. The streets have abandoned cars in them and filled with potholes, the sidewalks have trash spilled on them, and the walls are filled with graffiti. The walls also have what looks like blood smeared on them and missing posters strewn across them.

A3.2 Materials Used

The materials used are red, light gray, and dark brick for the buildings, concrete for the sidewalks, and asphalt for the roads.

A3.3 Environment

The environment in this level starts out as a normal day in the city slums. As the player progresses, they see that it's filled with mutant zombies and chaos has hit the streets shortly before the player has arrived.

A3.4 Mood

The mood of this level is chaos. The player sees the chaos and destruction in the otherwise normal city streets.

A3.5 Emotion

The emotion conveyed by this level is confusion. The streets are filled with chaos and destruction and there are monsters running wild in the streets. The walls are filled with missing person's posters and the player can see strange eyes watching them through the windows.

A3.6 Pacing

The pacing of this level is slow, allowing the player time to learn the games feel and controls. Nothing in this level is too hard for the player and nothing will

present immediate death for the player. As the level progresses, it will become slightly harder, but never too hard for the player to handle. During this slow paced level, the player will be encouraged by item placement to learn how to jump and punch to better prepare them for later levels.

A3.7 Lighting

The lighting of this level is bright and sunny, but it doesn't seem to fit right with what's happening on the streets, adding to the confused mood.

A3.8 Visual Impact

The visual impact in this level is the daytime background and in the middle of the level when the player can clearly see the cityscape, the multiple cloud layers, and the sun. The visual impact in the streets is all the subtle animation that will catch the player's eye and then stop as soon as it started.

Chapter A4: Gameplay

A4.1 Level Goal

The goal of this level is to reach Nemesis and follow him to the building tops. To do this, the player will have to learn how to use the jump and punch ability to maneuver past obstacles and defeat enemies found in the level. Once the player reaches Nemesis, he refuses to take Bob seriously and sends more mutant zombies after him which the player will have to use timed jumps and punches in order to survive.

A4.2 Gameplay Overview

The gameplay in this level is characterized mostly by learning and exploration. Newer players will have to learn the basic controls by solving the simple puzzles presented to them. New and experienced player alike will be able to explore a little bit and see areas they cannot yet get to but should still spark their interests.

A4.3 Relative Difficulty Rating

Being the first level, this is the simplest level of the game and shouldn't provide much of a challenge for experienced player and should provide a moderate challenge for newer players. The level's pacing is made so that the player can learn the abilities and then test the player's knowledge of abilities at the end of the level when they meet Nemesis. New and slightly more experienced players will be challenged by the boss fight, but it shouldn't be too hard for a player of any level to complete.

A4.4 Necessary Skills and Abilities

The skills and abilities needed for this level are only punch and jump. The level teaches the player how to use these skills and tests them at the end of the level.

A4.5 Strategy

The strategy of this level is to simply just go forward through the level. The player is encouraged to go slowly and explore a little. If the player chooses to explore, they will be able to find more hidden coins and buy more Hyper Energy

Drinks. If the player tries to go through the level too fast, they will miss the coins and possible miss obstacles and hurt themselves.

Chapter A5: Map Elements

A5.1 Naming Convention of Map Elements

Table A5.1 Streets Level Part I Map Element	Naming Conventions Naming Convention
Player Start	PS
Vending Machine	VM
Nickel	N
Dime	D
Quarter	Q
Macho-man Coin	M
Hyper Energy Drink	HD
Easy Enemy	EE
Medium Enemy	ME
Pothole	PH
Boss Fight	B

A5.2 Explanation of Map Elements

Table A5.2 Streets Level Part I Map Elements	Explanation of Map Elements Gameplay
PS	This is where the player starts
VM	This is where the player is able to buy Hyper Energy Drinks
N	This is where Nickels are placed on the map
D	This is where Dimes are placed on the map
Q	This is where Quarters are placed on the map
M	Macho-man coins gives the player an extra life when picked up
HD	Hyper Energy Drink that gives Bob energy when used
EE	This is where easy class enemies are placed on the map
ME	This is where medium class enemies are placed on the map

PH	This is where potholes are placed on the streets
B	This is where the boss fight and end of level is located

Chapter A6: Assets Needed for Map

A6.1 Environmental Textures

All assets on this map are composed of tiles of 16 x 16 pixels, 64x64 pixels, or 128x128 pixels. Generally, building tiles will be 64x64 pixels while the decorations will 32x32 pixels and the background will be 128x128 pixels.

Table A6.1: Building Textures		
Animation	Description	Tiles
Back Sidewalk	Background sidewalk	1
Dark Brick Buildings	Building made of dark brick	9
Front Sidewalk	Foreground Sidewalk	1
Gray Brick Buildings	Building made of gray brick	9
Ladder	Ladder going into sewers	3
Red Brick Buildings	Building made of red brick	9
Streets	City streets	2

Table A6.2: Decoration Art		
Animation	Description	Tiles
Small Windows	Small windows of a building	4
Large Windows	Large windows of a building	9
Window with eyes	Small windows with moving eyes	12
Small Poster	Small missing person poster	3
Medium Poster	Medium missing person poster	3
Large Poster	Large missing person poster	3
Nickel	Nickel coin	3
Dime	Dime coin	3
Quarter	Quarter coin	3
Vending Machine	Vending Machine	18
Hyper Energy Drink	Hyper Energy Drink	2
Sewer Grate	Sewer grate that fits on background sidewalk	1
Lamp Post	Lamp post that fits on the streets	5
Bloody Wall	Blood that fits on a brick wall	3
Dirty Wall	Dirt that fits on a brick wall	3
Graffiti	Graffiti that fits on a brick wall	3
Trash Bin	Trash bins that are on sidewalks	4

Table A6.3: Obstacles		
Animation	Description	Tiles
Air Ducts	Air ducts sticking out of building tops	2
Potholes	Potholes in the city streets	1
Pipes	Pipes sticking out of building tops	2

Table A6.4: Sky Backgrounds		
Animation	Description	Tiles
Day Sky	Day sky, including blank sky, clouds, and the sun	10
Evening Sky	Evening sky, including blank sky, clouds, and the sun	10

A6.2 Scripts

The scripting in Bob the Unlikely will be kept to a minimum and only those things that cannot be easily done will be done with scripting. All scripts will be kept inside a single file named `sc_bob.vbs`.

Table A6.6: Scripts	
Script Function	Description
Level Change	Changes from one level to the other
Damage	Handles the collision damage class so that everything is assigned a random amount of damage.
Menu Operation	Controls all menu options

A6.3 Special Functions

The majority of the functionality in Bob the Unlikely will be controlled by a series of special functions.

Table A6.7: Special Functions	
Special Function	Description
Timer	Handles the minutes, seconds, and milliseconds
Laser	Handles making the laser sprites and timing the laser interval

Punch	Handles making the punching sprite and timing the punching interval
Fly	Handles how Bob flies, how long he flies, and the amount of cool down time between flights
Death	Handles Bob's death
Money	Handles the amount of Money Bob has
Points	Handles the amount of points the player has
Vending Machine	Handles seeing if the player has enough for a drink and giving the player a drink if they have enough money
Health Up	Raises the player's health if they use a Hyper Energy Drink

Chapter A7: Music and Sound Effects

A7.1 Sound Effects

The sound effects of Bob the Unlikely will be done by Professor Perryman (approval pending), Dustin Smith, Tommy Westerman, and Joowon Kim. All sound effects will be comical and sound like they are from a cartoon.

Table A7.1 Bob's Sounds		
Filename	Description	Variations
snd_bob_breath_xx.wav	Bob's panting sound	3
snd_bob_damage_xx.wav	Bob's sound when damaged	4
snd_bob_freak_01.wav	Bob's freak out sound	1
snd_bob_fall_01.wav	Bob's fall sound	1
snd_bob_death_01.wav	Bob's sound when he dies	1
snd_bob_fly_xx.wav	Bob's sound when he takes off	4
snd_bob_drink_01.wav	Bob's sound when drinks a Hyper Energy Drink	1
snd_bob_land_xx.wav	Bob's sound when he lands	2
snd_bob_jump_01.wav	Bob's sound when he jumps	1
snd_bob_laser_01.wav	Bob's sound when he shoots a laser	1
snd_bob_power_01.wav	Bob's sound when he learns a new power	1
snd_bob_punch_01.wav	Bob's sound when he punches	1
snd_bob_walk_01.wav	Bob's walking sound	1

Table A7.2 Nemesis' Sounds		
Filename	Description	Variations
snd_nemesis_death_01.wav	Nemesis' sound when he dies	1
snd_nemesis_dmg_xx.wav	Nemesis' sound when damaged	2
snd_nemesis_fly_01.wav	Nemesis' sound when flying	1
snd_nemesis_jump_01.wav	Nemesis' sound when jumping	1
snd_nemesis_laser_01.wav	Nemesis' sound when shooting his laser	1
snd_nemesis_punch_01.wav	Nemesis' sound when punching	1
snd_nemesis_laugh_xx.wav	Nemesis' sound when laughing	3
snd_nemesis_walk_01.wav	Nemesis' sound while walking	1

Table A7.3 Enemy Sounds			
Character	Filename	Description	Variations
Mutant Zombie	snd_zombie_attack_xx.wav	Zombie's attack sound	3
Mutant Zombie	snd_zombie_death_01.wav	Zombie's sound when killed	1
Mutant Zombie	snd_zombie_damage_xx.wav	Zombie's sound when damaged	2
Rat	Snd_rat_squeak_01.wav	Rat's squeak	1

A7.2 Music

The background music of Bob the Unlikely is meant to reflect the general feel of the game. It's going to be fast paced music that has a cartoon or comic feel to it. As the player progresses through each level, the music will reflect the mood of that level while still trying to sound fast and have a cartoon feel.

Table A7.4 Background Music	
Filename	Description
snd_bmg_city_01.wav	City background music
snd_bmg_story_01.wav	Story background music
snd_bmg_boss_01.wav	Boss background music

Appendix B: Sky Level LDD

Bob the Unlikely Sky Level

Level Designed by Tommy Westerman

Document Created On: 8/19/05
Level Finished By: 8/29/05

Chapter B1: Maps

B1.1 Map Side view

This is the side view and primary view of the player for the second level, the Sky Level. The Sky Level is a small level, but the difficult jumping puzzles make it difficult for the player to advance through quickly.

The buildings are placed so that the player has to spend their whole flight time to get to the next buildings and on some buildings they must jump from window ledge to window ledge to get to the top of a building to get to the next building. If a player falls between the buildings, they immediately die.

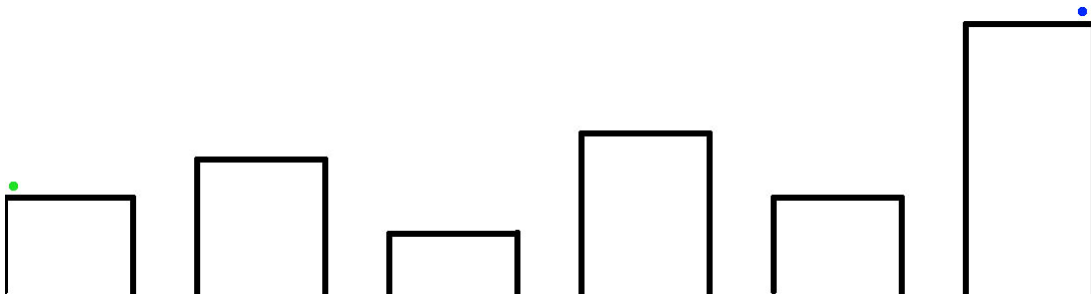
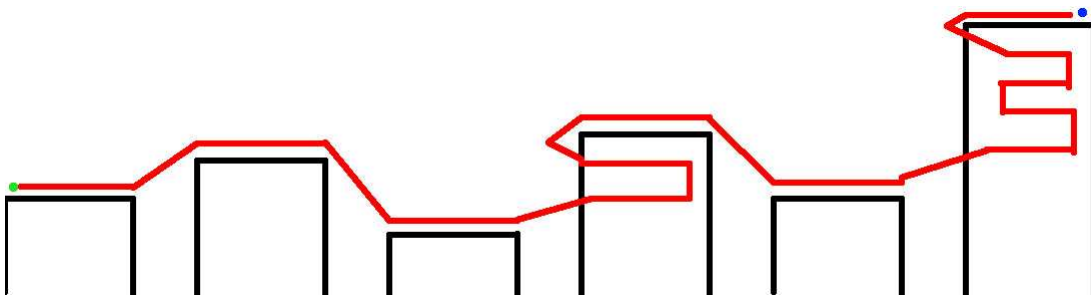


Figure B1.1: Side view of the Sky Level. The player starts at the left and progresses from building to building to the left.

B1.2 Critical Path



Chapter B2: Level Design

B2.1 Overview

The Sky Level is the second level of Bob the Unlikely and now he has learned how to fly for short periods of time. In this level, he is chasing Nemesis on the building tops across the city trying to stop him from infecting anyone else in the city. When Bob meets Nemesis at the end of the level, Nemesis actually fights him this time but runs away shortly after he starts to fight him telling Bob about the time bomb that will infect the entire city at once.

B2.2 Player's Focus

The player's focus in this level is to chase after Nemesis and defeat him at the end of the level.

B2.3 Level Objectives

- Chase after Nemesis
- Defeat Nemesis at the end of the level

Chapter B3: Look and Feel

B3.1 Architecture Style

The architecture of this level is the top of buildings in a major city. The tops of the buildings have pipes and air ducts sticking out of them that Bob can trip over and railings and ledges on the buildings that Bob can jump on.

B3.2 Materials Used

The materials used are red, light gray, and dark brick for the buildings.

B3.3 Environment

The environment in this level is on top of large buildings as the sun is starting to set. As the player progresses to the left, the background changes from the day sky to the evening sky. The tops of the buildings are filled with mutant zombies that will try to stop Bob as he moves across the level.

B3.4 Mood

The mood of this level is suspense. The player is trying to catch up with Nemesis but the mutant zombies keep getting in his way and slow him down.

B3.5 Emotion

The emotion conveyed by this level is desperation. Bob knows he must stop Nemesis from infecting more people and he must chase him down in order to stop him. Bob has Nemesis on the run here, but he just can't catch him. At the end of every building, Bob can see Nemesis just jump off the side of the screen. Until the end of the level, the player will always feel like they are 2 seconds too late.

B3.6 Pacing

The pacing of this level is much different from the previous level. While the first level was made to teach the player, this level is made to test the player. There

are many jumps that will challenge the player and failing these jump means immediate death for the player. While on the buildings, the difficulty is easy, but while trying to jump in between buildings, the player will have to time their jumps very well or else they will hit obstacles or enemies and possibly fall to their death.

B3.7 Lighting

The lighting of this level starts off bright but turns darker as the level progresses, giving a sense of the doom that lies ahead for the city.

B3.8 Visual Impact

The visual impact in this level is the background that starts out sunny but starts getting darker as the player moves to the left of the screen. This change should give the player sense that something bad is about to happen and should help bring the player more into the game.

Chapter B4: Gameplay

B4.1 Level Goal

The goal of this level is to catch up with Nemesis and stop him from infecting more people. The player will spend the whole level jumping from building to building trying to catch up with Nemesis, but always feeling just a few seconds too late. The player will have to be good at jumping in order to solve all the jumping puzzles presented in this level. Once the player reaches Nemesis, they will have to defeat him while trying not to fall off the building. In the first level, the game taught the player how to jump and this level tests the players' abilities.

B4.2 Gameplay Overview

The gameplay in this level is characterized mostly by jumping puzzles and exploration. The player will have to jump and fly between buildings very carefully in order to avoid enemies and obstacles. If the player chooses to explore, they will have even harder jumps to make, but they will be rewarded with more coins.

B4.3 Relative Difficulty Rating

This is the hardest level of the game because of the jumping puzzles, the possibility of immediate death, and the absence of vending machines. Because of this, each building will have a cool down spot for the player to recollect themselves so they can be ready for the next hard part. To newer players, this level will be very hard, but still doable if they stick to the main path. For the more experience players, this level will provide a good challenge and many places to explore with many items to get.

B4.4 Necessary Skills and Abilities

The skills and abilities needed for this level are punch, jump, and fly. Jumping and flying in this level are the key abilities in that the player will have many difficult jumps to make where they have to utilize the fly ability.

B4.5 Strategy

The simplest strategy of this level is to stick to the very top of buildings and do little exploring. For newer player, this strategy will work best because it's the easiest and has the least change of immediate death. For taking the easiest path, the player will have little chance to explore and pick up extra items, but they will have a better chance of living. More experienced players are encouraged to explore the buildings and grab all the extra items. The player will be rewarded with extra items, but these items are very dangerous to get.

Chapter B5: Map Elements

B5.1 Naming Convention of Map Elements

Table B5.1 Sky Level	Naming Conventions
Map Element	Naming Convention
Player Start	PS
Vending Machine	VM
Nickel	N
Dime	D
Quarter	Q
Macho-man Coin	M
Easy Enemy	EE
Medium Enemy	ME
Hard Enemy	HE
Pipe	P
Air Duct	AD
Boss Fight	B

B5.2 Explanation of Map Elements

Table A5.2 Sky Level	Explanation of Map Elements
Map Elements	Gameplay
PS	This is where the player starts
VM	This is where the player is able to buy Hyper Energy Drinks
N	This is where Nickels are placed on the map
D	This is where Dimes are placed on the map
Q	This is where Quarters are placed on the map
M	Macho-man coins gives the player an extra life when picked up
HD	Hyper Energy Drink that gives Bob energy when used
EE	This is where easy class enemies are placed on the map
ME	This is where medium class enemies are placed on the map

HE	This is where hard class enemies are placed on the map
P	This is where pipes are placed on the map
AD	This is where air ducts are placed on the map
B	This is where the boss fight and end of level is located

Chapter B6: Assets Needed for Map

B6.1 Environmental Textures

All assets on this map are composed of tiles of 16 x 16 pixels, 64x64 pixels, or 128x128 pixels. Generally, building tiles will be 64x64 pixels while the decorations will 32x32 pixels and the background will be 128x128 pixels.

Animation	Table B6.1: Building Textures Description	Tiles
Dark Brick Buildings	Building made of dark brick	9
Gray Brick Buildings	Building made of gray brick	9
Red Brick Buildings	Building made of red brick	9

Animation	Table B6.2: Decoration Art Description	Tiles
Small Windows	Small windows of a building	4
Large Windows	Large windows of a building	9
Window with eyes	Small windows with moving eyes	12
Nickel	Nickel coin	3
Dime	Dime coin	3
Quarter	Quarter coin	3

Animation	Table B6.3: Obstacles Description	Tiles
Air Ducts	Air ducts sticking out of building tops	2
Pipes	Pipes sticking out of building tops	2

Animation	Table B6.4: Sky Backgrounds Description	Tiles
Day Sky	Day sky, including blank sky, clouds, and the sun	10
Evening Sky	Evening sky, including blank sky, clouds, and the sun	10

B6.2 Scripts

The scripting in Bob the Unlikely will be kept to a minimum and only those things that cannot be easily done will be done with scripting. All scripts will be kept inside a single file named `sc_bob.vbs`.

Table B6.5: Scripts	
Script Function	Description
Level Change	Changes from one level to the other
Damage	Handles the collision damage class so that everything is assigned a random amount of damage.
Menu Operation	Controls all menu options

B6.3 Special Functions

The majority of the functionality in Bob the Unlikely will be controlled by a series of special functions.

Table B6.6: Special Functions	
Special Function	Description
Timer	Handles the minutes, seconds, and milliseconds
Laser	Handles making the laser sprites and timing the laser interval
Punch	Handles making the punching sprite and timing the punching interval
Fly	Handles how Bob flies, how long he flies, and the amount of cool down time between flights
Death	Handles Bob's death
Money	Handles the amount of Money Bob has
Points	Handles the amount of points the player has
Vending Machine	Handles seeing if the player has enough for a drink and giving the player a drink if they have enough money
Health Up	Raises the player's health if they use a Hyper Energy Drink

Chapter B7: Music and Sound Effects

B7.1 Sound Effects

The sound effects of Bob the Unlikely will be done by Professor Perryman (approval pending), Dustin Smith, Tommy Westerman, and Joowon Kim. All sound effects will be comical and sound like they are from a cartoon.

Table B7.1 Bob's Sounds		
Filename	Description	Variations
snd_bob_breath_xx.wav	Bob's panting sound	3
snd_bob_damage_xx.wav	Bob's sound when damaged	4
snd_bob_freak_01.wav	Bob's freak out sound	1
snd_bob_fall_01.wav	Bob's fall sound	1
snd_bob_death_01.wav	Bob's sound when he dies	1
snd_bob_fly_xx.wav	Bob's sound when he takes off	4
snd_bob_drink_01.wav	Bob's sound when drinks a Hyper Energy Drink	1
snd_bob_land_xx.wav	Bob's sound when he lands	2
snd_bob_jump_01.wav	Bob's sound when he jumps	1
snd_bob_laser_01.wav	Bob's sound when he shoots a laser	1
snd_bob_power_01.wav	Bob's sound when he learns a new power	1
snd_bob_punch_01.wav	Bob's sound when he punches	1
snd_bob_walk_01.wav	Bob's walking sound	1

Table B7.2 Nemesis' Sounds		
Filename	Description	Variations
snd_nemesis_death_01.wav	Nemesis' sound when he dies	1
snd_nemesis_dmg_xx.wav	Nemesis' sound when damaged	2
snd_nemesis_fly_01.wav	Nemesis' sound when flying	1
snd_nemesis_jump_01.wav	Nemesis' sound when jumping	1
snd_nemesis_laser_01.wav	Nemesis' sound when shooting his laser	1
snd_nemesis_punch_01.wav	Nemesis' sound when punching	1
snd_nemesis_laugh_xx.wav	Nemesis' sound when laughing	3
snd_nemesis_walk_01.wav	Nemesis' sound while walking	1

Table B7.3 Enemy Sounds			
Character	Filename	Description	Variations
Mutant Zombie	snd_zombie_attack_xx.wav	Zombie's attack sound	3
Mutant Zombie	snd_zombie_death_01.wav	Zombie's sound when killed	1
Mutant Zombie	snd_zombie_damage_xx.wav	Zombie's sound when damaged	2
Rat	Snd_rat_squeak_01.wav	Rat's squeak	1

B7.2 Music

The background music of Bob the Unlikely is meant to reflect the general feel of the game. It's going to be fast paced music that has a cartoon or comic feel to it. As the player progresses through each level, the music will reflect the mood of that level while still trying to sound fast and have a cartoon feel.

Table B7.4 Background Music	
Filename	Description
snd_bmg_city_01.wav	City background music
snd_bmg_story_01.wav	Story background music
snd_bmg_boss_01.wav	Boss background music

Appendix C: Streets Level Part II LDD

Bob the Unlikely Streets Level Part II

Level Designed by Tommy Westerman

Document Created On: 8/19/05
Level Finished By: 8/29/05

Chapter C1: Maps

C1.1 Map Side view

This is the side view and primary view of the player for the second level, the Sky Level. The Sky Level is a small level, but the difficult jumping puzzles make it difficult for the player to advance through quickly.

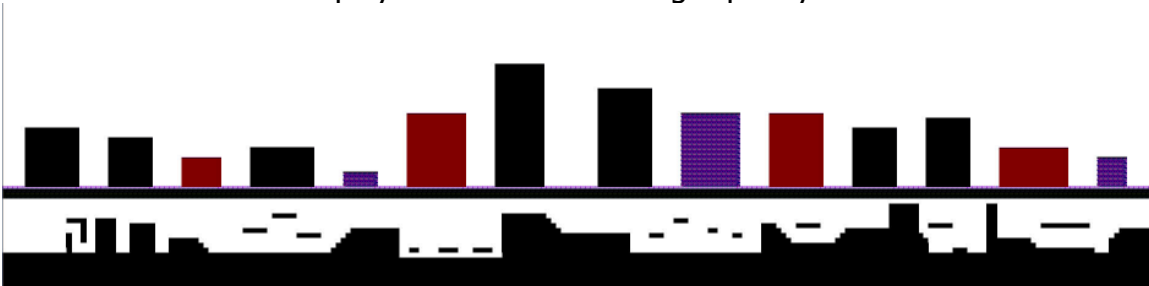


Figure C1.1: Side view of Streets Level Part II. The player starts at the left of the map and progresses to the left with the level ending in the sewer at the far left.

C1.2 Critical Path

The critical path for the Streets Level Part II allows for the player to take 1 of 3 paths that all meet at the end for the boss fight. The easiest path is to take the top path, the medium path is to travel by the streets, and the hardest path is through the sewers.

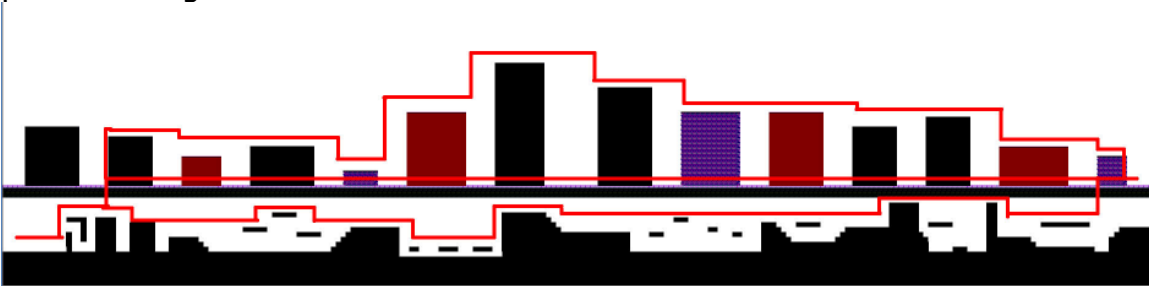


Figure C1.2: Critical Path for the Streets Level Part II. The easiest path is the top path, medium in the middle, and the hardest is the bottom path.

Chapter C2: Level Design

C2.1 Overview

In this level, Bob has learned that Nemesis is planning to set off a time bomb that will infect the entire city and turn them all into mutant zombies. Bob must search the city and find Nemesis to stop the bomb from going off. In this level, Bob will be able to explore the sewers, streets, and building tops.

C2.2 Player's Focus

The player's focus in this level is to stop Nemesis from setting off the time bomb and defeat him once and for all.

C2.3 Level Objectives

- Find Nemesis
- Defeat Nemesis
- Disarm the time bomb

Chapter C3: Look and Feel

C3.1 Architecture Style

The architecture of the Streets Level is buildings one would find in the slums of a major city. The streets have abandoned cars in them and filled with potholes, the sidewalks have trash spilled on them, and the walls are filled with graffiti. The walls also have what looks like blood smeared on them and missing posters strewn across them. In the sewers, it is dark and filled with mossy bricks and walls.

C3.2 Materials Used

The materials used are red, light gray, and dark brick for the buildings, concrete for the sidewalks, asphalt for the roads, and dark mossy brick for the sewers.

C3.3 Environment

The environment of this level is sunset in the city slums. The streets, sewers, and buildings are filled with mutant zombies, graffiti, and signs of chaos. Inside the sewers it's dark and the only light comes from a strange glowing moss that only barely shows where Bob can and cannot step.

C3.4 Mood

The mood of this level is a rushed feeling. The player must find the time bomb to stop Nemesis from infecting the entire city.

C3.5 Emotion

The emotion conveyed by this level is a feeling of impending doom. It's knighting, the streets are filled with chaos and destruction, monsters are running wild in the streets and sewers, and the city is on the verge of a major disaster.

C3.6 Pacing

The pacing of this level is moderate-hard. It starts off much like the first level, but quickly gets harder. If the player stays in the streets, the challenge will stay moderate to hard while the tops of buildings and inside the sewers will be much harder. The most challenging parts of this level are where the player must enter the sewer areas where it is barely lit and the player will have a much harder time seeing enemies and obstacles.

C3.7 Lighting

The lighting of this level is much darker this time through. While in the streets, the player can see the sun setting and in the sewer, the player is almost complete darkness.

C3.8 Visual Impact

The visual impact in this level is the sky background with the sun setting and the sewer backgrounds. The player can see the sun setting and it gives them a sense that this may be the final sunset the city sees. While in the sewers, it is dark and gloomy and the only light comes from mossy bricks that seem to glow in the darkness.

Chapter C4: Gameplay

C4.1 Level Goal

The goal of this level is to find Nemesis and stop him from setting off his time bomb. In order to do this, the player will have to use all of their abilities to maneuver through the tops of buildings, the city streets, and sewers to fight enemies and avoid obstacles. Once the player finds Nemesis, they will have to have one last fight with him in order to save the city and disarm the time bomb. To add to the action, once the player finds Nemesis, they will have a short amount of time to defeat him once they find him or else the time bomb will go off.

C4.2 Gameplay Overview

The gameplay in this level is characterized by exploration. The first time through the level, the player could only see areas that they couldn't yet get to, but now they have full access to all of those areas and more. While looking for Nemesis the player is encouraged to explore the city streets, building tops, and sewers to find hidden items and secret areas.

C4.3 Relative Difficulty Rating

This level isn't as difficult as the previous level, but it is still challenging. The player will still have difficult jumps to execute, but none of them result in immediate death. The hardest spots of the level will be inside the sewers where the most items are to find. The player will have to maneuver through barely lit areas and avoid enemies and obstacles to get these items. The final battle will prove to be difficult for even experienced player in that the player only has a short amount of time before the time bomb is set off and the game is over.

C4.4 Necessary Skills and Abilities

The skills and abilities needed for this level are punch, jump, flight, and eye lasers. The player will now have the flight ability this time through the level and will be able to explore new areas and the eye lasers will make killing enemies easier and will be necessary for hurting Nemesis.

C4.5 Strategy

The Intended strategy for this level is to explore the city in order to find Nemesis. The player will have access to the tops of buildings, streets, and sewers in order to find Nemesis. The player can choose to be primarily on the streets or sewers, but will be forced to go in all three areas at various points in the level. This is the longest level of the game and requires the most exploration. The more exploration the player does, the more they are rewarded with valuable coins for Hyper Energy Drinks. If the player does not explore and tries to just go straight through the level, they will have a hard time with the boss because they will need the Hyper Energy Drinks.

Chapter C5: Map Elements

C5.1 Naming Convention of Map Elements

Table C5.1 Streets Level Part II Map Element	Naming Conventions Naming Convention
Player Start	PS
Vending Machine	VM
Nickel	N
Dime	D
Quarter	Q
Macho-man Coin	M
Hyper Energy Drink	HD
Easy Enemy	EE
Medium Enemy	ME
Hard Enemy	HE
Pothole	PH
Sewer Water	SW
Water Drip	WD
Boss Fight	B

C5.2 Explanation of Map Elements

Table C5.2 Streets Level Part II Map Elements	Explanation of Map Elements Gameplay
PS	This is where the player starts
VM	This is where the player is able to buy Hyper Energy Drinks
N	This is where Nickels are placed on the map
D	This is where Dimes are placed on the map
Q	This is where Quarters are placed on the map
M	Macho-man coins gives the player an extra life when picked up
HD	Hyper Energy Drink that gives Bob energy when used
EE	This is where easy class enemies are placed on the map

ME	This is where medium class enemies are placed on the map
HE	This is where hard class enemies are placed on the map
PH	This is where potholes are placed on the streets
Sewer Water	This is where areas of sewer water are placed on the map
Water Drip	This is where water drips are placed on the map
B	This is where the boss fight and end of level is located

Chapter C6: Assets Needed for Map

C6.1 Environmental Textures

All assets on this map are composed of tiles of 16 x 16 pixels, 64x64 pixels, or 128x128 pixels. Generally, building tiles will be 64x64 pixels while the decorations will 32x32 pixels and the background will be 128x128 pixels.

Animation	Table A6.1: Building Textures Description	Tiles
Back Sidewalk	Background sidewalk	1
Dark Brick Buildings	Building made of dark brick	9
Front Sidewalk	Foreground Sidewalk	1
Gray Brick Buildings	Building made of gray brick	9
Ladder	Ladder going into sewers	3
Red Brick Buildings	Building made of red brick	9
Sewer	Sewer foreground texture	16
Streets	City streets	2

Animation	Table A6.2: Decoration Art Description	Tiles
Small Windows	Small windows of a building	4
Large Windows	Large windows of a building	9
Window with eyes	Small windows with moving eyes	12
Small Poster	Small missing person poster	3
Medium Poster	Medium missing person poster	3
Large Poster	Large missing person poster	3
Nickel	Nickel coin	3
Dime	Dime coin	3
Quarter	Quarter coin	3
Vending Machine	Vending Machine	18
Hyper Energy Drink	Hyper Energy Drink	2
Sewer Grate	Sewer grate that fits on background sidewalk	1
Lamp Post	Lamp post that fits on the streets	5
Bloody Wall	Blood that fits on a brick wall	3
Dirty Wall	Dirt that fits on a brick wall	3
Graffiti	Graffiti that fits on a brick wall	3
Trash Bin	Trash bins that are on sidewalks	4

Table A6.3: Obstacles		
Animation	Description	Tiles
Air Ducts	Air ducts sticking out of building tops	2
Potholes	Potholes in the city streets	1
Sewer Water	Contaminated sewer water in the sewers	9
Water Drip	Contaminated dripping water in the sewers	9
Rats	Mutated rats in the sewers	3
Pipes	Pipes sticking out of building tops	2

Table C6.4: Sky Backgrounds		
Animation	Description	Tiles
Day Sky	Day sky, including blank sky, clouds, and the sun	10
Evening Sky	Evening sky, including blank sky, clouds, and the sun	10

Table A6.5: Sewer Backgrounds		
Animation	Description	Tiles
Sewer	The basic background for the sewers	8
Passageway	A darkened passageway in the sewer	2
Water Pipe	A large open pipe	1

C6.2 Scripts

The scripting in Bob the Unlikely will be kept to a minimum and only those things that cannot be easily done will be done with scripting. All scripts will be kept inside a single file named `sc_bob.vbs`.

Table A6.6: Scripts	
Script Function	Description
Level Change	Changes from one level to the other
Damage	Handles the collision damage class so that everything is assigned a random amount of damage.
Menu Operation	Controls all menu options

C6.3 Special Functions

The majority of the functionality in Bob the Unlikely will be controlled by a series of special functions.

Table B6.6: Special Functions	
Special Function	Description
Timer	Handles the minutes, seconds, and milliseconds
Laser	Handles making the laser sprites and timing the laser interval
Punch	Handles making the punching sprite and timing the punching interval
Fly	Handles how Bob flies, how long he flies, and the amount of cool down time between flights
Death	Handles Bob's death
Money	Handles the amount of Money Bob has
Points	Handles the amount of points the player has
Vending Machine	Handles seeing if the player has enough for a drink and giving the player a drink if they have enough money
Health Up	Raises the player's health if they use a Hyper Energy Drink

Chapter C7: Music and Sound Effects

C7.1 Sound Effects

The sound effects of Bob the Unlikely will be done by Professor Perryman (approval pending), Dustin Smith, Tommy Westerman, and Joowon Kim. All sound effects will be comical and sound like they are from a cartoon.

Table B7.1 Bob's Sounds		
Filename	Description	Variations
snd_bob_breath_xx.wav	Bob's panting sound	3
snd_bob_damage_xx.wav	Bob's sound when damaged	4
snd_bob_freak_01.wav	Bob's freak out sound	1
snd_bob_fall_01.wav	Bob's fall sound	1
snd_bob_death_01.wav	Bob's sound when he dies	1
snd_bob_fly_xx.wav	Bob's sound when he takes off	4
snd_bob_drink_01.wav	Bob's sound when drinks a Hyper Energy Drink	1
snd_bob_land_xx.wav	Bob's sound when he lands	2
snd_bob_jump_01.wav	Bob's sound when he jumps	1
snd_bob_laser_01.wav	Bob's sound when he shoots a laser	1
snd_bob_power_01.wav	Bob's sound when he learns a new power	1
snd_bob_punch_01.wav	Bob's sound when he punches	1
snd_bob_walk_01.wav	Bob's walking sound	1

Table B7.2 Nemesis' Sounds		
Filename	Description	Variations
snd_nemesis_death_01.wav	Nemesis' sound when he dies	1
snd_nemesis_dmg_xx.wav	Nemesis' sound when damaged	2
snd_nemesis_fly_01.wav	Nemesis' sound when flying	1
snd_nemesis_jump_01.wav	Nemesis' sound when jumping	1
snd_nemesis_laser_01.wav	Nemesis' sound when shooting his laser	1
snd_nemesis_punch_01.wav	Nemesis' sound when punching	1
snd_nemesis_laugh_xx.wav	Nemesis' sound when laughing	3
snd_nemesis_walk_01.wav	Nemesis' sound while walking	1

Table B7.3 Enemy Sounds			
Character	Filename	Description	Variations
Mutant Zombie	snd_zombie_attack_xx.wav	Zombie's attack sound	3
Mutant Zombie	snd_zombie_death_01.wav	Zombie's sound when killed	1
Mutant Zombie	snd_zombie_damage_xx.wav	Zombie's sound when damaged	2
Rat	Snd_rat_squeak_01.wav	Rat's squeak	1

C7.2 Music

The background music of Bob the Unlikely is meant to reflect the general feel of the game. It's going to be fast paced music that has a cartoon or comic feel to it. As the player progresses through each level, the music will reflect the mood of that level while still trying to sound fast and have a cartoon feel.

Table B7.4 Background Music	
Filename	Description
snd_bmg_city_01.wav	City background music
snd_bmg_story_01.wav	Story background music
snd_bmg_boss_01.wav	Boss background music