

Super Nate Punchout Adventures Final Report

Ye Olde Bucklers of Swash:
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1 Story

Having found no worthy opponents at Harvey Mudd College, Nate began a quest to find opponents who could stand up to his might. After searching far and wide, Nate decided that the only true challenge available to him was the freeway. After hours of taking out sedans, sports cars, and SUVs, Nate was beginning to feel that even the freeway was no challenge for him. However, he was soon proven wrong as 5 lanes of semi trucks came barreling down the freeway at breakneck speed. This caught Nate by surprise and he was hit by the trucks and knocked unconscious. When he awoke, he found himself in a strange Forest. He looked around and saw himself surrounded by strange and powerful creatures. He knew then what he must do.

2 Gameplay Overview

The player takes on the role of Nate, unstoppable boxer extraordinaire. Nate can walk and jump in a 3-D world and defeats enemies using a combination of cunning and devastating punches.

2.1 Objective

The objective of the game is to clear the Jive Forrest of all enemies.

2.2 Controls

The game's controls, as follows, are confined to the keyboard:

- w Move forward
- s Move backward
- a Strafe left
- d Strafe right
- ← Turn left
- Turn right
- ↑ Jump

Space Punch

2.3 Jumping

Nate walks around on the grass for the most part. He can also jump in order to walk on platforms or avoid enemies. While jumping, Nate is able to move just as if he were on the ground. That is, he is able to move both forwards and backwards as well as side to side. Further, he is able to rotate while in mid-air.

3 Level

The only level in this game is the Jive Forest. It is a slightly hilly terrain with several trees and floating platforms. This level contains a number of enemies (below) which Nate must defeat on his quest for ultimate power.

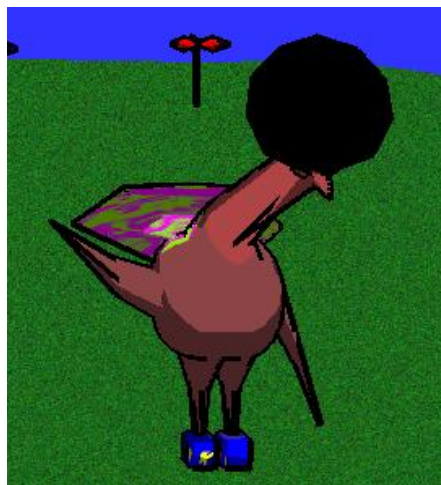
3.1 Platforms

The Jive Forest is rife with floating gray platforms. Nate is able to jump on these platforms to escape enemies or survey the forest.

4 Enemies

The Jive Forest is inhabited by several creatures. The creatures Nate has come to defeat are Jive Turkeys and Goblins.

4.1 Jive Turkeys



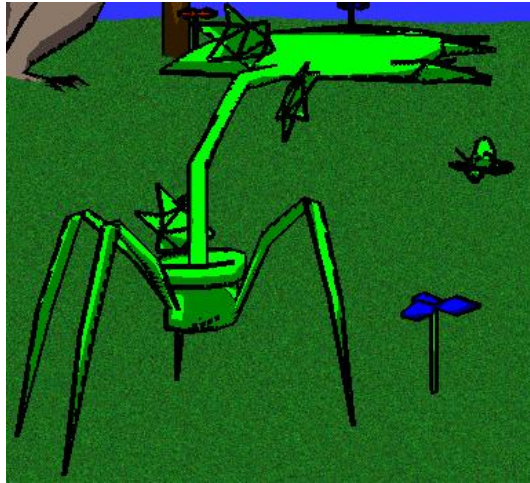
The Jive Turkey spends all of his free time performing the Jive Turkey Dance. This dance consists of the Jive Turkey leaning to one side, lifting into the air with his elevator shoes, and performing a flip. The only thing that will stop the Jive Turkey from performing this dance is the presence of Nate. The Jive Turkey is extremely territorial, so when it sees Nate, it will run straight at him and peck him to death. The only way to stop the Jive Turkey once it has spotted Nate is to kill it. The Jive Turkey does very little damage, although it can run very very fast. Additionally, the Jive Turkey is very weak, taking only two hits to destroy from the front and a single hit from behind.

4.2 Goblins



Goblins are the scouts of the Jive Forrest. They like to stand in one place and keep watch for intruders. If they see an intruder, they will call an alert, and all nearby creatures will attack the intruder. If the Goblin is attacked from behind, it will be so surprised and enraged that someone was able to sneak past its watch that it will turn and attack without calling an alert. A goblin is very tough and strong, but fairly slow moving. When a goblin spots Nate, all other units within 1000 world units are also alerted to Nate's presence and begin to attack him.

4.3 Fly Traps



The Fly Trap is a stationary creature. It always turns to face Nate if he is close to it. If Nate gets within attack range, it will attack him at an extremely rapid rate, and his only chance for survival is to escape. Nate has a larger attack range than the Fly Trap, so he can get around this by standing just close enough to hit the Fly Trap. The Fly Trap is unable to move, but is incredibly strong and durable. Whenever Nate is within the fly trap's attack distance, it turns so that it is always facing Nate and continuously chomps at him.

5 Health



There is a red health bar at the top of the screen. If this is depleted, Nate dies and the game is over. The health bar is drained when Nate is damaged and it is replenished when Nate picks up a health bottle. The health bottle will restore 75% of Nate's health.

6 Sound

There is a background track as well as sounds triggered by events. Only one event-based sound can be played at a time. An event-based sound cannot be played while another event-based sound is playing.

6.1 Background Track

The background track for this game is a midi file of “Stayin’ Alive” by the Bee Gees.

6.2 Nate Sounds

Nate has only one sound effect. Upon death, Nate says “Ouch.”

6.3 Jive Turkey Sounds

The Jive Turkey has four sound events. Upon spotting Nate, the Jive Turkey says “Oh Yeah.” When the Jive Turkey gets close enough to Nate to begin an attack, it warbles. When the Jive Turkey is damaged, it squawks. When the Jive Turkey dies, it says “Oh No.”

6.4 Goblin Sounds

The Goblin has four sound effects. Upon spotting Nate, the Goblin says “It’s Nate.” When the Goblin gets close enough to Nate to begin an attack, he says “Take It.” When the Goblin is damaged, it says “Ow.” When the Goblin dies, it screams.

6.5 Fly Trap Sounds

The Fly Trap has two sound effects. When Nate gets close enough to a Fly Trap for it to attack him, the Fly Trap growls. When Nate deals damage to the Fly Trap, it cries out in pain.

7 Animations

All models used are in MD2 format, and use the MD2 animation format. The Goblin and Fly Trap enemies were obtained on the internet. Their attacks were derived from animations already present

in the files and the other animations we use were already present. The Nate and Jive Turkey models were created from scratch solely for this project. We designed our animations to fit the following table:

FRAMES	ANIMATION
1-20	idle
21-24	attack 1
25-28	attack 2
29-32	attack 3
33-38	run
39-50	hit from front
51-62	hit from rear
63-68	killed from front
69-74	killed from rear

8 Particle Effects

There are two types of particle effects. One is blood spatters and the other is exclamations.

8.1 Blood

When Nate or an enemy is damaged, blood spatters in the opposite direction from that in which the damage was dealt. This is in the form of a lot of little red blood circles which fly out in the same general direction but each with slightly different paths.

8.2 Exclamations

When Nate punches an enemy, the punch is accompanied by a Batman style exclamation. These can be “Bam!” “Biff!” or “Yow!”

9 Budget

Our budget was strictly \$0.

10 Known Issues

The game can, and probably will, run slowly on many computers. The only workaround for this is to reduce your computers resolution and color depth.

Occasionally the direction that Nate punches will invert, such that he punches out of his back. Once this happens, the problem may correct itself, but this is rare. If this occurs, the best thing to do is to exit and reload the game.

It is possible to jump off the heightmap if you hold one of the directional movement keys while you go. Once you release this key you will be snapped back on to the heightmap.

11 Possible Future Improvements

The models are of poor quality due to inexperience. Better models would definitely improve the overall appearance of the game.

We would have liked to have more and larger levels, but due to time constraints we were unable to implement this. Due to the simplicity of our level loading file format, it would be a fairly simple change to accommodate multiple levels.

Additionally, we would have liked to include a boss in each level. This boss would simply be a larger stronger enemy who perhaps had more than a single means of attack.

Further, we would have liked to add support for projectile weapons. While it would be against the spirit of the game for Nate to carry a firearm, shooting enemies would have been a welcome addition.

12 Acknowledgments

We would like to acknowledge Nate Yoder for inspiring this game as well as voice acting. Voice acting credits also go to Stu Mershon for the Goblin and Forrest Briggs for the Jive Turkey.