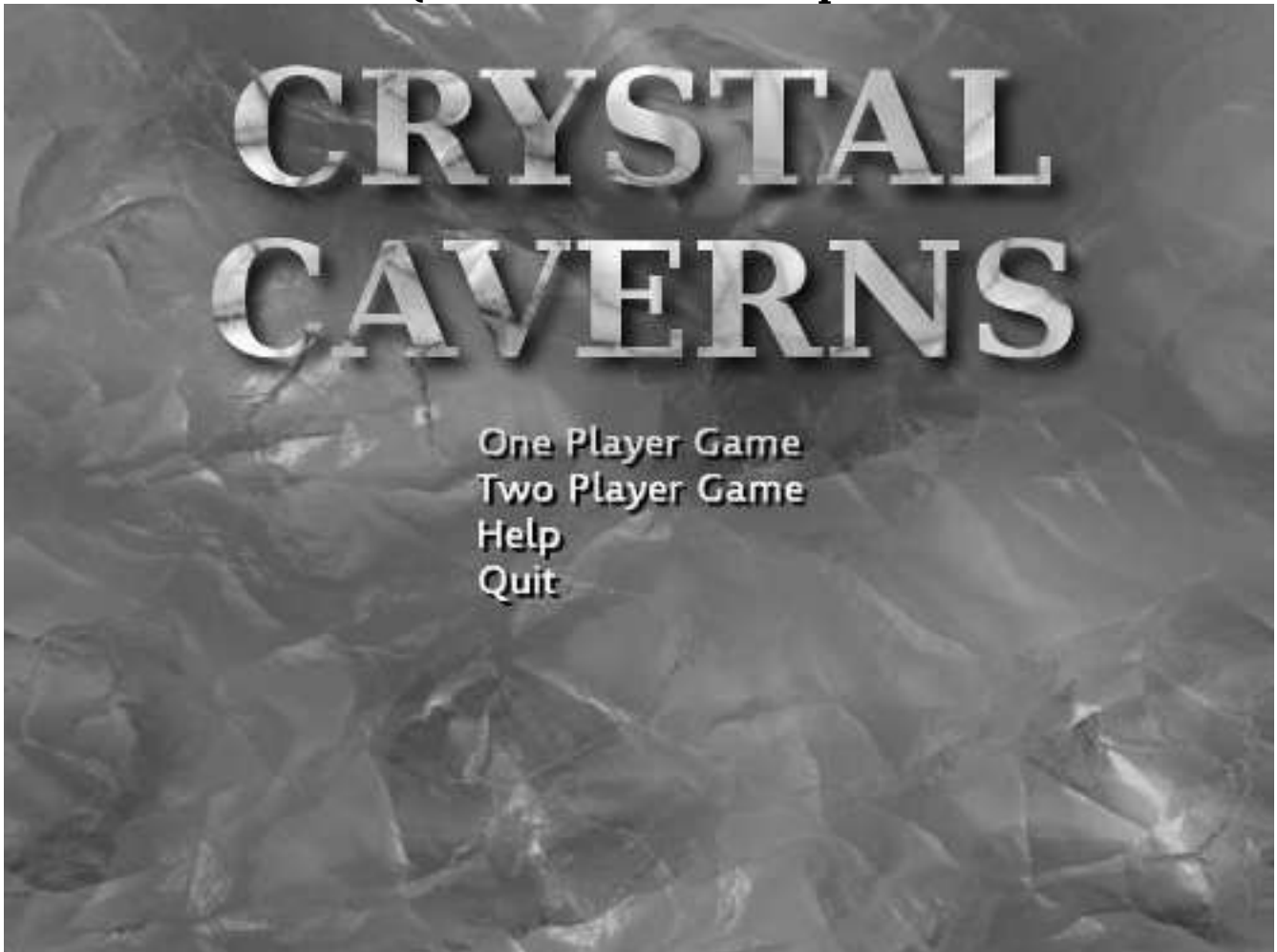


Crystal Caverns

Design Document for:

Crystal Caverns

Quest For the Fire Opal



[Image made with help from Genetica Viewer by Spiral Graphics](#)

Crystal Caverns Game Specifications

**Jamie McMahon, June 19, 2009
Version 1.0**

Crystal Caverns

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Game Overview

Philosophy

Philosophical Point 1

I am writing this game to show what is possible with Microsoft XNA Game Studio 3.0. It is a simple side scrolling game along the same lines as *Super Mario Brothers* by Nintendo and *Ghosts and Goblins* by Capcom.

Common Questions

What is this game?

This game is a 2D side scrolling game.

Why create this game?

I am creating this game to show what is possible using the Microsoft XNA Framework.

Where does this game take place?

This game takes place in a mythical land inside a series of crystal caverns.

What does the player control?

The player controls the hero of the game, Norman.

What is the main focus?

The idea of this game is for the hero to travel through the a series of caverns to find the Fire Opal and win the hand of the Princess.

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Feature Set

General Features

Features that I am planning on implementing are 2D 32-bit graphics. As well as stunning tiles and backgrounds, hopefully attractive sprites and good sound effects. I am thinking of 8 levels with 8 caverns per level. At the end of each level there will of course be a boss fight. Sprites of course will be animated and I hope to have nice sound effects and music as well.

The game will have single player and two player modes. Players will not play at the same time, they will have to take turns.

Single Player Mode

In single player mode the player has only three lives. There will be the ability to learn more lives in the game though.

Two Player Mode

Two Player mode works like single player mode. When one player dies, the other player takes their turn. If a player finishes a cavern it becomes the next player's turn.

Game Play

The player will navigate through the caverns using the left and right arrow key to move from side to side, the up key to jump, the down key to duck and the space bar to throw their weapon at their enemies. The player will have armor. If the player is hit they will lose their armor. It is possible to pick up more armor. They will also be able to pick up power ups in the form of crystals. Each crystal will have it's own unique power. The player will only have a few minutes to make it through each of the caverns. If time expires, the player dies.

The player kills enemies by hitting them with their weapons. Some enemies will drop different weapons, armor and items for score.

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The Game World

Overview

As stated previously, there are eight levels. Each level will have eight caverns to go through and at the end there will be a boss to fight.

Game Levels

Each level will have a different crystal background, made using [Genetica Viewer by Spiral Graphics](#). The tiles will likewise vary from level to level, as well as the enemies.

Rendering

The levels will be rendered using a 2D tile engine. The tile engine will use a 2D camera to control scrolling. The tiles will be in sprite sheets. The player and enemies will also be in sprite sheets. The same is true for different items.

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Game Characters

Player Character

The main character is Norman. He is knight on a quest to win the hand of the Princess Heather. His goal is to find the Fire Opal at the end of the Crystal Caverns.

Enemies

Norman will face a variety of enemies. At this point they are pretty much still undecided but there will be at least four different enemies per level and eight bosses.

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Weapons

Throwing Knife

The throwing knife is the fastest weapon and starting weapon. The throwing knife can be thrown with every press and release and the space bar. However, it only inflicts minimal damage. Some enemies, other than bosses which will take more, require up to three hits to kill. Bosses will take six hits to kill. Some bosses will have defend moves that will deflect the knife.

Axe

The axe is a little faster than the knife. The player can throw an axe once every second. It will kill an enemy that takes two hits with the throwing knife. An enemy that takes three hits with the throwing knife will take two hits with the axe. To kill a boss with the axe, it takes four hits.

Crossbow

The crossbow is a slow weapon. It takes two seconds to reload after each shot, however if it strikes an enemy that takes three hits with the throwing knife. To kill a boss with the crossbow, it takes three hits.

Wand of Fireballs

The wand of fireballs has a three second recharge time. It will kill all enemies, other than bosses, with one shot. To kill a boss with the wand it only takes two hits.

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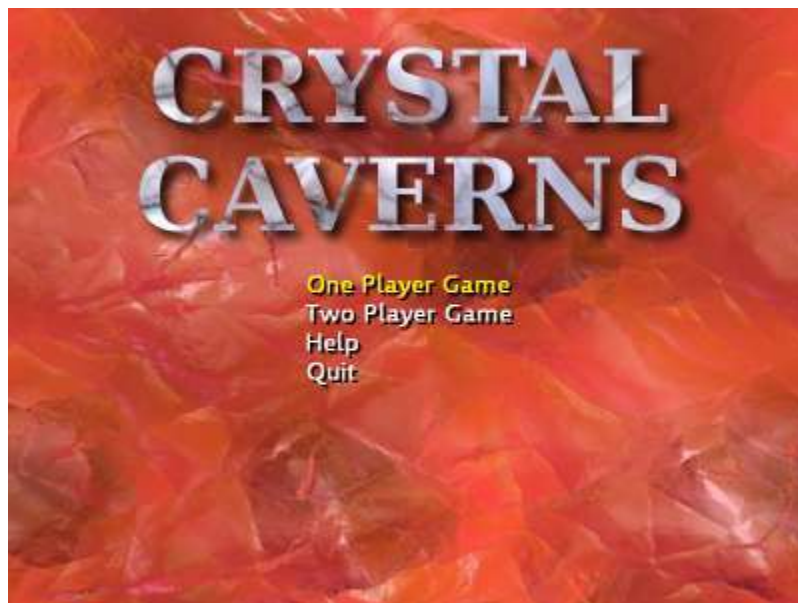
User Interface

Character Controls

The user controls the character using the arrow keys. The left and right key move the character left and right. The up key makes the character jump. If the left or right key is down when the user presses the up key, the character will jump in an arc. Otherwise the character will just jump straight up. Pressing the down key will make the player duck. The space bar will cause the character to throw his weapon in the direction the character is facing.

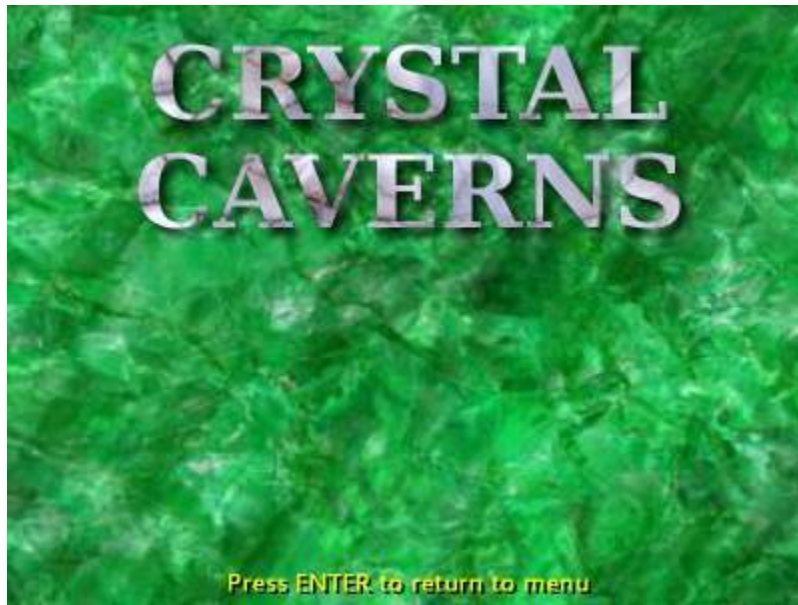
Screen Layouts

Main Menu



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Help Screen



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Music and Sound Effects

This Page is Under Construction