

HISTORY OF VIDEOGAMES, ASSIGNMENT #1

MCAD LS3222, SPRING 2009

Overview

Your first assignment is to design a classic arcade game that could have been released before 1984. This assignment is due Wed March 11, and must be submitted to me, via email (marc@marcjensen.com) or uploaded to the class website before class, or handed in to me at the start of class.

This assignment is worth 100 points max.

Restrictions

You have all of the technical constraints and restrictions placed on you that were placed on the people producing arcade games at that time:

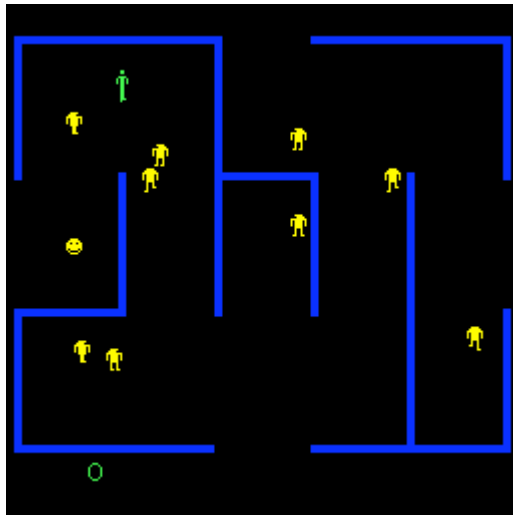
Simple input controls

You are limited to the controls “of the day”. This means joysticks, trackballs, buttons, and simple rotary (“pong”) type dial controls.

Simple display technology

The display may be black and white or color, and should be in the style of games produced during this period. Generally low resolution and 8 to 24 colors. Some examples:

Berzerk
256 x 244 pixels, 16 colors



Pac Man:
224x288, 16 colors



Simple Sound

Simple sounds, simple music, and simple speech samples may be used. Full CD quality songs would not be appropriate.

Simple gameplay

You are limited to simple on-screen worlds like Berzerk, Pac Man, and Donkey Kong. You can have multiple screens on your level, but they should be similar in functionality to each other.

Advantage

This may sound limiting, but you have a huge advantage - you have seen games after this period, and now you can "go back in time" to create a game with all the knowledge.

What To Hand In

You must turn in the following to receive full credit (**100 points total**).

Please be sure to complete all work - credit will be awarded for creativity, execution, and completeness.

Name & Description (40 points)

Put on your marketing hat, and name your game. Also, you should submit a full and complete description of the game that covers the following:

- What is the point of this game?
- Describe the gameplay - describe a sample play of this game, if that helps. Some examples of good descriptions of gameplay can be found here:
 - http://strategywiki.org/wiki/Pac-Man/How_to_play
 - http://strategywiki.org/wiki/Asteroids/How_to_play
 - http://strategywiki.org/wiki/Berzerk/How_to_play
 - http://strategywiki.org/wiki/Centipede/How_to_play
- Is this one or two player?
- How does the player "win", and how are they rewarded for playing?
- What is unique about this game?

Creativity (10 points)

10 points will be given for creativity:

- Could this game have been realistically produced at this time?
- How creative is this game, compared to games of the same period?

Game Board Layout (25 points)

Include a "screenshot" of your game, with all of the important stuff labeled. You can include multiple screenshots, if required. You can draw this by hand, or use any computer tools (illustrator/photoshop/etc).

Example screenshots:

- Donkey Kong: http://www.klov.com/game_detail.php?game_id=7610
- Centipede: http://www.klov.com/game_detail.php?game_id=7299
- Asteroids: http://www.klov.com/game_detail.php?game_id=6939

Game Instructions (15 points)

Include an "instruction card" that would describe, in very simple terms, how to play this game. An instruction card can be words, images, or (most likely) both. A person that reads this card should be able to put in a quarter and understand how to play this game.

An example of the Donkey Kong instruction card is included at the end of this document.

Arcade Flyer Art (10 points)

Create the promotional flyer that would be used to sell this game to an arcade operator. A photo of the cabinet, a description of the game, and any other marketing tactics should be included. This format should follow the conventions of arcade flyers from the time period.

An example of the Flyer Art for Berzerk is included at the end of this document.

Resources

The Arcade Flyer Archive. An amazing archive of arcade flyer art - you can search by year, manufacturer, or game name.

<http://www.arcadeflyers.com>

The Killer List of Videogames (KLOV). A very complete (and ugly) list of arcade games.

<http://www.klov.com/>

Mike's Arcade / Instruction Cards. A store that has a nice collection of downloadable PDF art.

<http://www.mikesarcade.com/arcade/cards.html>

Local Arcade Arcade Art Library. A collection of raster and vector arcade arts. Lots of scans, repros, and logos are yours to download.

http://www.localarcade.com/arcade_art/

Wikipedia. If you are looking for information on a popular game, the Wikipedia can be a great reference.

<http://www.wikipedia.org/>

www.1980-games.com : A place to play some old arcade games, right in your browser. Sound often

does not work, but the games are emulated and faithful to the arcade.

<http://www.1980-games.com/us/>

Example Documents




A typical arcade instruction card:

SAVE THE LADY FROM **DONKEY KONG**

Nintendo

1. Insert coin(s).
2. Select one or two players.
3. Controller moves Jumpman in 4 directions.
4. **Jump button makes Jumpman jump.**
5. If Jumpman reaches top, Donkey Kong takes the lady higher up, and structure changes shape.
6. When a certain structure has been cleared, Jumpman saves the lady.

SCORING VALUE

<p>★ JUMPING OVER :100 PTS.</p> 	<p>★ HITTING WITH HAMMER :300-800 PTS.</p> 
<p>★ PICKING UP :300-800 PTS.</p> 	

- Bonus points awarded based on time remaining.
- Extra Jumpman when you gain a certain points.

Arcade Flyer Art for Berzerk (2-sided, which was typical)

STERN GOES BERZERK!



"How we gonna get out of this one?"

"Kill the humanoid."

"Chicken, fight like a robot!"

"The answer's on the back."

"Get the humanoid!"

"Humanoid must not escape!"

"Intruder alert."

"Intruder must not escape!"

STERN GOES BERZERK!

If you think we went crazy developing Berzerk, you're right! This is the first time we've ever put all of our technology and wit to work in one video game. The result is a video masterpiece that not only drives players absolutely Berzerk, it drives profits directly to operators.

THE BERZERK LINEUP OF INNOVATIVE FEATURES:

- Unsurpassed 30-word vocabulary allows game to communicate to player.
- 64,000 random maze patterns appear on video screen for explosive—and non-repetitive—action.
- Newly designed "Joy Stick" enables player to move image of humanoid in 8 different directions.
- 10 highest scores-to-date register on screen after play is over.
- Memory also stores 5 highest scores-to-date, even when machine is unplugged.
- Attract mode beckons players by voicing—"Coins detected in pockets"—at timed intervals.
- All logic boards housed in accessible pullout drawer in cabinet front, providing easy service for technicians.
- Sophisticated self-diagnostic programming routine.

PLAY FEATURES



Robots pursue humanoid (player) through one of 64,000 possible maze patterns.



Humanoid avoids robots by manipulating "Joy Stick" and destroys robots by firing weapon.



"Evil Otto," an indestructible force, appears randomly on screen to pursue and destroy Humanoid. He must be avoided at all costs!

"You'll really flip over this game, too!"

Stern Electronics, Inc. 1725 Diverser Parkway
Chicago, Illinois 60614 (312) 935-4600
Telex 25-4857 / Toll-Free Service No. (800) 621-6424
Designed and developed by Universal Research Laboratories, Inc., a Stern subsidiary.

MCNICE DIST. INC.
2939 Payne Ave.
Cleveland, Ohio 44114

STERN
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Example of an assignment that was well done (cover sheet):



Example of an assignment that was well done (description):

BARREL MASTER

Description

Premise

You are the Barrel Master, veteran of 1,000 different barrel stunts! Heroic and valiant, all the ladies want you and all the men want to be you!

One day, after surviving a trip down the Niagra Falls for the 99th time, you overhear a sinister plot! A deranged bomber is going to blow up the falls' hydro electric plant unless someone stops him! Looks like your 100th trip down Niagra Falls just got a lot more exciting!

Smash that despicable bomber, dodge the deadly rocks, and protect the falls at any cost! You're the only one who can help! You're the Barrel Master!

Goal

Navigate your way down a series of waterfalls, dodging rocks and branches while simultaneously knocking off time bombs! Hit a snooping bomber agent for a bonus!

Controls

Joystick - Use the joystick to navigate left and right and slow or speed up your descent. Pressing the joystick in conjunction with the jump button controls the direction in which Barrel Master jumps.

Jump - Use the jump button to spring over unavoidable obstacles.

Start - Press the start button to activate your game (1 player only)

Gameplay

Each board is a randomly generated set of obstacles on top of an otherwise generic waterfall. The player attempts to navigate their falling digital barrel past the obstacles, into the bombs, and finally either into the water or into a sneaking bomber agent.

You lose when you collide with 3 obstacles or miss all of the bombs on the board. Instead of men or lives your barrel takes damage whenever you hit an obstacle. Hitting an obstacle the first or second time will restart the level.

Your running score is kept at the top of the screen and calculated after the completion of every board. Missed bombs are subtracted from your base score, bonuses are awarded for all bombs and agents hit.

After 25 levels the player will be congratulated on successfully defending Niagra Falls, only to learn that the bomber has returned and planted another round of bombs. Play time lasts until all lives are lost or all bombs on a board are missed.



Example of an assignment that was well done (screenshots):

BARREL MASTER

Screenshots



- High Score
- Lives and Current Score
- Avatar
- Starting Platform
- Bomb (must hit)
- Tree limb (obstacle, avoid)
- Rock (obstacle, avoid)
- Bomber Agent (bonus points)
- Ending Platform

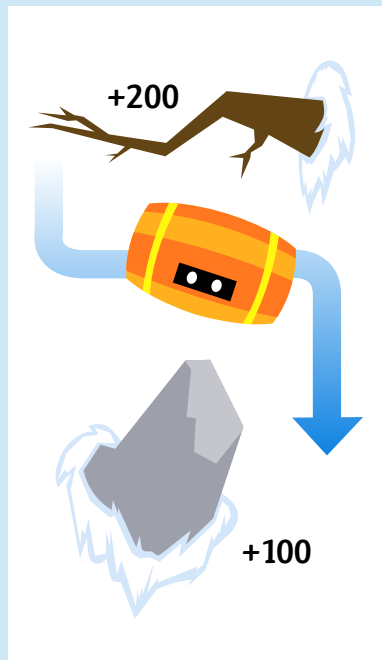
Example of an assignment that was well done (instruction card):

BARREL MASTER

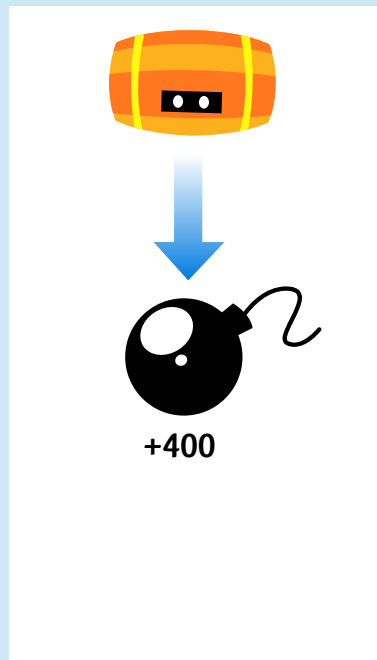
Instruction Card

- 1.) Insert coins.
- 2.) Press Start button.
- 3.) Joy Stick moves Barrel Master left and right or speeds up and slows down his progress (down, up).
- 4.) Jump button makes Barrel Master jump briefly.
- 5.) Avoid trees and rocks while trying to hit bombs.
- 6.) After completing 25 boards player is congratulated on saving America, but can continue to play until losing all lives.

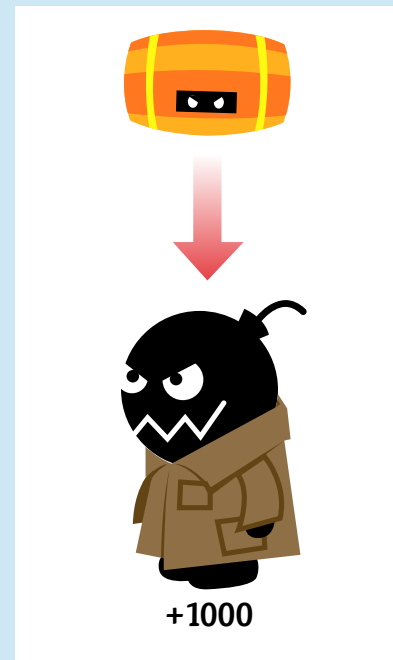
Avoid!



Hit!



Bonus!



Example of an assignment that was well done (flyer front):



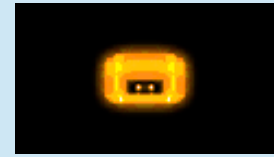
Example of an assignment that was well done (flyer back):

More challenging than Pac Man! More thrilling than Galaga!

Every innovation in modern video gaming has gone into United Barrel Company's first release: Barrel Master! Our space age technology has produced a machine with an almost nonexistent failure rate, and our stunning modern graphics will draw every eye in the arcade! Be prepared to rake in the profits with Barrel Master!

Fantastic Features!

- ◊ 128,000 random board patterns for ultimate replayability!
- ◊ Attract mode has 20 word vocabulary that draws in players with challenging "trash talk"!
- ◊ Unique difficulty "bell-curve" to draw in players early on but limit most gameplay to 120 seconds or less!
- ◊ Foam-padded joy stick for added comfort!
- ◊ America-First Model replaces bomber with Soviet spies to entice patriotic players!
- ◊ State of the Art self-diagnostic programming routine!
- ◊ Top 10 highest scores to date display on screen after play is over!
- ◊ Memory stores 5 highest scores, even when unplugged!



Play as the heroic Barrel Master!



Navigate each level to stop the evil Bomber!



BARREL MASTER

United Barrel Company
98 United Barrel Pkwy.
Cincinnati, Ohio 60614
Telephone: (888) 888-8888
Telefax: (888) 888-8888

Designed and developed by The Barrel Group
Laboratories, Inc. A General Electric subsidiary.