# Penguin Pull

# **Mediocre Megagames**

Adam Wardell, John Hurley, Malcolm Crum, Michael Olson



# **Penguin Pull**

An environmentally-themed arcade game for Microsoft Windows

- Collect penguins on your tugboat rescue mission to the Antactic!
- So much ice has melted from global warming, the penguins can no longer migrate!
- Pull an ice floe full of penguins to get them there!
- The more penguins you have, the higher your score!
- Keep your ice floe in the shade or it will melt!
- Use your cloud seeding rocket to generate new clouds, or upgrade existing ones!
- But watch out for obstacles in the dangerous waters of the Antarctic...
- All in an 8 bit retro aesthetic



Mock in-game screenshot

# The Team

**Adam Wardell** has been designing video games ever since the womb, but recently has gained the capacity to develop them. Adam hails from a household which owns literally hundreds of video game titles, all of which provide daily inspiration for him. His last game creating venture was a Frogger inspired sidescroller titled Frogward Bound.

**John (Alex) Hurley** has questioned game design since he was given the old square block square hole toy as a child and has since then always been interested designing and improving games. He is especially interested in the capacity that games have to tell a story in a way no other medium can. Alex has been designing and creating Games for 3 years now, his last video game was a Pacman styled game about grocery store robbery.

**Malcolm Crum** has spent nearly a quarter century devoted to intense study and research in the field of electronic interactive entertainment. He uses his in-depth knowledge of gaming to ensure any games he creates are top quality examples of video game excellence. His previous entries to the high score table of gaming include a Dope Wars clone for iPhone and a Geometry Wars-inspired shooter, both unreleased.

At an early age, **Michael Olson** developed a passion for games and gaming. And this passion has only grown over the years. Despite his talents and interests as a musician, Michael instead decided to pursue a career in the game industry. Currently involved with S2 Games experimenting with special effects scripting, he is excited to have a first-hand look into the processes of game development.

# **Description**

Penguin Pull is a retro-styled arcade game with a twist. Players attempt to avoid obstacles while collecting penguins to take south to colder waters - all while keeping their ice floe in the shade of protective clouds, or it will melt, leaving little room for precious penguins. In adventure mode, the player is attempting to navigate the penguins through the levels to the destination for their migration. In classic arcade mode, the game gets progressively harder as time goes on, but the goal is only to better the high score, rather than reach any hard ending. Intelligently random generated obstacles and events ensure a fresh yet consistent experience every game. Players must move their boat quickly and use their cloud-seeding technology to help the penguins survive global warming.

Upon loading the game, the user is presented with a brief intro describing the environmental plight faced by the penguins - shown in a way similar to Streets of Rage or Zero Wing, followed by a flashy, colourful title screen. The exaggerated pixel sizes, "engrish" subtitles, and low-fi chiptune music immediately set the retro, tongue-in-cheek tone for the game.

Once started, the player is given control of a tugboat towing a medium-sized ice floe with two penguins on it, travelling through the ocean heading south to colder climates. Obstacles appear on the path: rocks and icebergs, surfacing whales, and seals that will try to steal penguins right off your ice floe. Collision with an enemy will involve one of your penguins falling off - lose them all and you lose the game!

In addition to avoiding sea-borne objects, you must also manage the temperature of your ice floe in the hot sun. Stay under a cloud, your ice floe stays chilled. Once the cloud has passed, however, your penguin raft will be left out in the sun, slowly melting - evident with a temperature gauge to the right. Let the gauge fill to the top, and your ice floe shrinks - now it can't hold as many penguins. However, stay under specially defined snowy clouds, and watch the temperature gauge go into the negative - stay long enough and your ice floe will grow a size! In a pinch, you can fire a cloud-seeding rocket from your tug boat to seed new clouds to ensure your penguins safe passage.

As the player progresses through the game, obstacles become more frequent, clouds become less prevalent, as well as chance of cross-winds and gusts increase. A balance must be struck between avoiding obstacles, picking up penguins, all while keeping the ice floe in the shade of nearby clouds. The player accumulates points over time based on how many penguins he or she is currently pulling. In adventure mode, the player receives additional bonus points based on how many penguins he or she finishes with.

The unique interplay between dodging obstacles while remaining in the shade from clouds will provide an addicting combination for players, who will return again and again to best their high score.

# The Player

**Tug-Boat** 



Your tugboat is the only hope the poor baby penguins have of escaping the melting ice and freezing cold waters! Maneuver it around, avoiding deadly obstacles, picking up extra cloud-seeding missiles, and rescuing floundering penguins. If you hit an obstacle, you lose a penguin, and if you lose all your penguins you lose the game!

## **Ice Floe**



In order to accommodate the penguins you find on your journey, you have attached a large ice floe to the back of your tugboat using a sturdy rope. But be careful, as it is highly vulnerable to the burning heat of the sun. Be sure to keep an eye on it at all times, taking care to make sure it stays in the shade of the clouds and doesn't collide with any obstacles floating in the water. If you leave your ice floe under a snow cloud, it will grow in size! Managing your ice floe is essential to success in Penguin Pull. The larger your ice floe, the more penguins you can carry at a time.

# The Obstacles

Obstacles are generated randomly, and with increasing frequency as you head south.

## **Icebergs**

Icebergs are the standard obstacle in Penguin Pull. Due to global warming, large chunks of ice caps are now free floating in the sea, and if players aren't careful they may collide with one of them. Thankfully they won't suffer a titanic fate, but they will lose one of their penguins as the ice floe shakes from impact.

#### Whales

Whales are common in the cold waters of the Antarctic, and they present a significant danger to players. While they are much larger than icebergs, players get a warning by seeing their large forms underwater early, allowing them to get out of the way before the whale breaches. If the player collides with a breached whale, they lose a penguin, similar to hitting an iceberg.

#### Seals

As the game advances, players will encounter further dangers, such as hungry seals. Upon sighting the players ice floe, seals will leap off their rocks into the water. If the player doesn't get out of the way soon enough, the seal will leap out of the water, grab a penguin off the ice floe, and return to the water with it. Players will have to be careful to avoid seals as soon as they see them.

# Wind changes

The Antarctic is home to wild weather conditions. In Penguin Pull, this is presented with changing wind conditions, and occasional gusts. To raise difficulty, this will occur more as the player goes on.

# **Powerups**

#### **Rockets**



Picking up rockets allows you to use Cloud Seeding technology (<a href="http://en.wikipedia.org/wiki/Cloud\_seeding">http://en.wikipedia.org/wiki/Cloud\_seeding</a>) to generate a new cloud. This can be invaluable if you're caught without a patch of shade, and your ice floe is heating up to much! You can also fire a rocket into an existing cloud to turn it into a snow cloud. Leave your ice floe under a snow cloud, and it will grow in size!

## **Penguins**



Save them! Move your boat or ice floe over penguins in distress to allow them to hop up and join the party. They also act as a multiplier for the players score - the more penguins you carry, the more points you get.

## **Clouds**

### White Clouds



Standard fluffy white clouds will shield your ice floe from the heat of the sun, preventing it from melting further. Fire off your cloud-seeding rockets to create more of them.

### **Snow Clouds**



Snow clouds will not only protect your ice floe from the sun, but also cool it down even more, eventually causing it to expand into a larger ice floe with room for more penguins! Fire one of your cloud-seeding rockets at a white cloud to turn it into a snow cloud.

## **Schedule**

#### To be done:

- by 2/5 menu system is done
- by 2/21 general movement of boat basic, obstacle spawning, HUD
- by 2/25 clouds and rocks spawn and recycle down the screen, start rockets
- by 3/4 collision with rocks/ cloud shadows, game over, art for other enemies, start ice floe with penguins
  - Begin internal testing (group members)
- by 3/7 enemies work on screen (seals/whales) hi score saves from game to game
- by 3/10 add in all sound effects and finalize menu options (sounds:on/off) Begin external testing (group members' friends, family)
- by 3/14 final polish balancing game play tweak spawn rates, possible code extension of wind gusts.

#### General to do's:

- Artwork: Clouds (small, large, snowy), whale (underwater, breaching, water spout), ice floe (small, medium, large), iceberg/rocks, seal, "Help me!" and "No room" text for penguin, "Ice floe melting, get in shade" tutorial text
- In-game music
- Sound effects: Hit obstacle, breaching whale, gain penguin, lose penguin, ice floe shrinks, ice floe grows
- Rocket firing, mouse input
- Balancing
- Polish!

#### **Malcolm Crum**

Daily log: http://penguinpull.pbworks.com/Malcolm

Logo

Seal artwork

Whale artwork

Create objects

High score, option saving/loading from disk

#### **Michael Olson**

Daily log: http://penguinpull.pbworks.com/Michael's-Daily-Derps

**Tugboat movement** 

Ice floe movement

Find music for in-game

Game over screen

Rocket firing, explosion, subsequent cloud generation

# John (Alex) Hurley

Daily log: http://penguinpull.pbworks.com/daily-stuff

Temperature gauge

Cloud art

Find sound effects

Temperature/cloud cooling rate

Collision detection

## **Adam Wardell**

Daily log: http://penguinpull.pbworks.com/folder.php?folder=Adam+Blogs

Obstacle generator

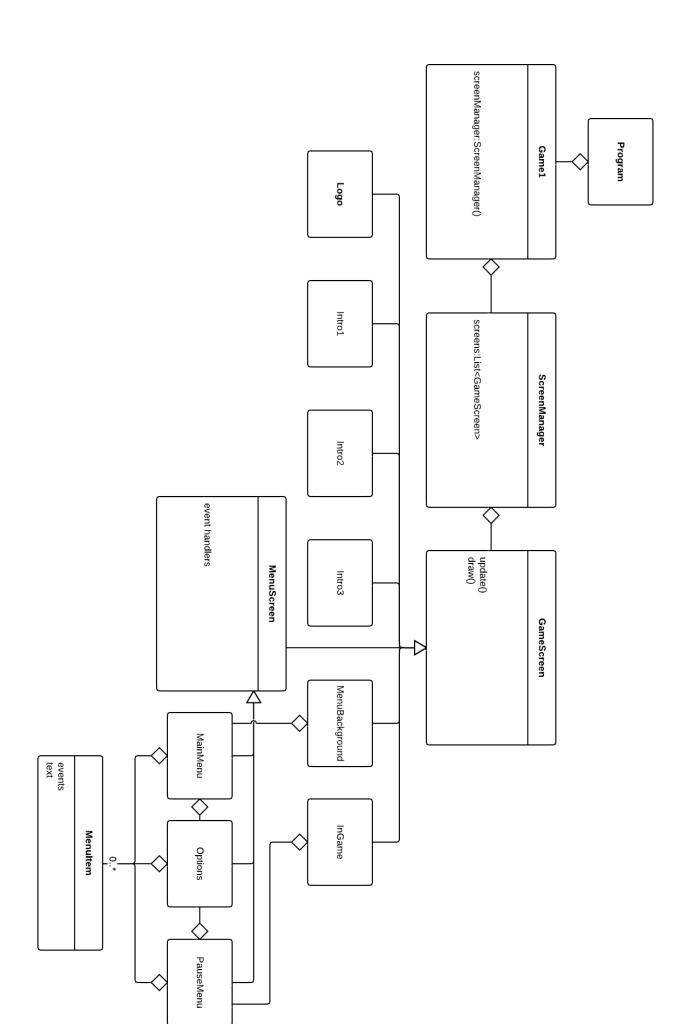
Cloud generator

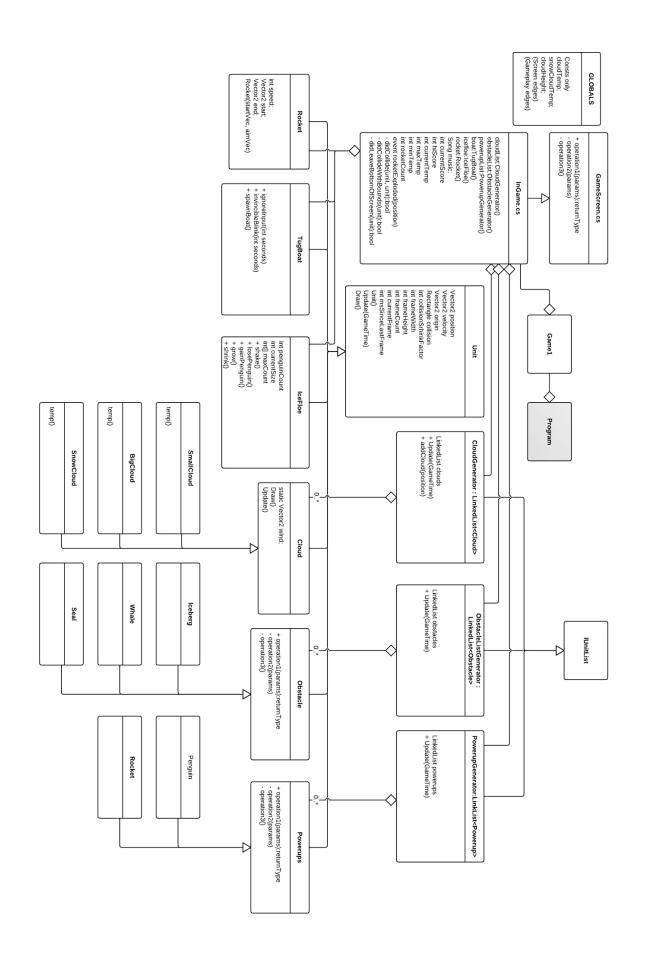
Powerup generator

Ice floe shrink/grow effect

Penguin management code

# **UML**





# **Artwork**



First screen of intro - camera slowly pans across animated ice floes. Text is tapped out one character at a time, with associated muted sound effects



Gameplay and HUD. You must make sure your boat and the ice flow following avoid any obstacles. Try to keep the flow underneath cloud cover. Snowy clouds will actually increase the size of your cloud. The numbers up top represent your current score and the high score. The mercury-thermometer on the right represents how close the ice flow is to melting a size down. The fraction tells you how many penguins you have out of how many your current ice flow can support. The rockets represent how many cloud-seeding rockets you have available.