

Session 10

- 1) Is 500x smaller scale good?
 - a. Time wasted walking from one point to another?
 - b. LOTRO used Travel Rations to skip travel times.
 - c. What about when we move to galactic scopes?
 - d. It doesn't often feel like it is 500x smaller.
 - e. Log Scaling uses a graphical fisheye view of graphs.
 - f. Dynamic Scaling could be better.

- 2) [Rabin 3.4](#)
 - a. Programming Fundamentals
 - b. Object Oriented Design
 - c. Component Systems
 - d. Design Patterns
 - i. Good to know for interview questions

3) Blasteroids

The code is located [here](#). In that code, a record is essentially the same thing as a struct in C. Blasteroids has a 'relatively' small number of moving objects. Uses a window to draw, and a background for double buffering. When an asteroid is destroyed draw the background at that spot.

Event handling in unicon uses integer codes associated with the various key presses. However, in order to get the correct number one must subtract 128 from the askii character code returned.

The idle function of Blasteroids is run when no process needs immediate attention. This is used when the graphics display is updating itself.

The graphics of Blasteroids are simple. However, they illustrate simple arcade style mechanics.

4) Strategy Games

Dr. J mentioned a Strategy and Tactics Magazine. It can be found [here](#).

Strategy games are usually considered longer scale than tactics games. Requiring the use of large scale military context, and plans. They are often a string of tactics used to win a battle. Some tactics might even involve losing a given battle to win the war.

Tactics games use military units and weapons to win a given battle. Some tactics often include overwhelming the enemy by tricking them into thinking there are fewer units to fight than there actually are. Tactics games are often called RTS or Real Time Strategy. Some of the Tactics games are not RTS, but instead Turn-Based, allowing for fixed time slices for the player to decide what they are going to do.

The Civ board game (which is not the same as the Sid Meyers video game) uses colonization, resource accumulation ect. It therefore is considered a strategy, rather than tactics. There might be tactics battles inside of it, but the overall game is strategy based.

Various games listed for the strategy and tactics categories were:

- 1) Battle for Westnoth - Tactics
- 2) Ruse – Mix of strategy and tactics
 - a. WW2 based
 - b. Can scale the game from full sized units down to sprites
- 3) Age of Empires – Mixed strategy and tactics
 - a. RTS
 - b. Good balancing of units
 - c. Very extensible/customizable
- 4) Stronghold – Tactics
 - a. Defense
- 5) Sim City - Strategy
 - a. Adopt a strategy to deal with various problems in the city (ex: pollution)
- 6) Sins of a Solar Empire – Mixed

Many of these games share a common model of a playing field. Some of them use a hex grid.

Hex maps use discreet moves based on terrain types. The number of moves is often limited. Attacks and weapon range can also change based on the tile the unit is on. Tiles often contain resources, either limited or unlimited. It is also sometimes possible to 'modify' tiles, perhaps by building structures on it, or mining out the resources.

5) OGRE

Information contained in each hex is the row, column, terrain type, units, and exits.

Session 11

Guest Visit – Ian Chambers

Email: chambers@uidaho.edu

- 1) Important Pirates or Pirate goings on:
 - a. Julius Caesar:
 - i. Captured by Pirates
 - ii. He would challenge them to jousting
 - iii. When they set a ransom he told them to increase it
 - iv. When he was ransomed off, he threatened to hunt them all down and kill them
 1. He did just that.
 - b. Henry Morgan (captain)
 - i. Started with the indies
 - ii. Had expeditions to forts
 1. Used the sea to attack Spanish treasure ships
 2. Went to port bellow and used cows to trample the town before entering it.

c. Black Beard

- i. Had a fleet of approximately 12-13 ships at one point.
- ii. Blockaded the town of Charleston
- iii. When he got trapped in an outlet in North Carolina he went into Hand to hand combat with Raynard
 1. He was shot 7-8 times and hacked at with a sword before he went down.
 2. When they cut off his head and dumped his body overboard it swam around the boat several times before it sank.

The age group Ian is looking for is (preferably) his Upper division history class. However, he believes it to be easier to apply towards a high school level education.

In the game he said learning about tactics and weaponry, the challenges pirates would face are all good topics.

Many different sizes of cannonballs used in even more different sizes of cannons as a challenge.

The music used isn't particularly important.

Ian provided 2 links to pirate sites:

- Rob Ossian's [Pirate's Cove](#)
- Cindy Vallar's [Pirates and Privateers](#)

He said that if anyone wanted the slides from his class all they need to do is ask.

The categories used in his history class are:

- 1) Role in which piracy is often used to create an empire
 - a. Rome used pirates
 - b. England – Sir Francis Drake was/used pirates to create an empire
 - c. Henry Morgan – Governor of Jamaica was a pirate
- 2) Why pop culture loves pirates
 - a. Veggie Tales (Christian based moral teaching show) has a pirate movie.

It is believed the first safety deposit box was created by pirates. They often had to come up with ways to protect their money. However, the concept of buried treasure didn't really happen that much. There are still educational aspects to having that in a game though.

He said there isn't a whole lot he won't try to find a way to use. The game does not need to be directly historical either.

When pirates meet each other:

- 1) They use a sort of round robin/ round table, no one person is 'leader'.

- a. In combat the 'captain' is around for fast decisions only.
- 2) Small codes of conduct
 - a. Black Bart required no drinking on Sunday, and no women were allowed onboard.

If a pirate ship captured someone, and that person wanted to be a pirate, they would often faint resistance so that they can get out of charges of piracy saying they were forced to do it.

There were several female pirates; however they almost always disguised themselves.

Madam Chen in china had around 1000 people working for her; she managed to change the political dynamics in china.

Do pirates want to be popular?

Some had a large ego, and would make sure everyone knew their name.

There was often a benefit in not killing everyone on the opposing ship.

If they gave in they'd lose the cargo, but they go free and tell others to just give up so they can live.

They also did a sort of rough justice.

The east India Company had a captain who was very mean to his crew. Pirates killed the captain and told the crew they could keep all their stuff, and go home, because the captain was so brutal.

The skull and crossbones flag meant that they were already dead, but if they catch you, you will also die.

Hourglass flag was very popular, when captured by pirates you are not in the normal time stream anymore, because you don't know what is going on in the outside world.

The flags were mostly home-made. Often, one could associate flags with specific pirates.

Mutiny was how most pirates got started. It wasn't always about killing the captain either, sometimes they would jump ships at port and run off.

The United States is the only country today which still has a privateering license.

Often former slave ships would become pirate ships, because they were smaller and faster.

When Spain France and England made peace the golden age of pirates was near an end.

This is because they started trading, and working together to eliminate the pirates, rather than send them after each other. They would often destroy the places the pirates could offload goods.

Make a better defense against pirates, pirates will make a better pirate.

To specialize a character in a game:

- 1) Number of voyages to S. Africa could give immunity to some diseases
- 2) Number of years in the navy before piracy could increase the ability to navigate
 - a. Pirates always want maps
- 3) Remove the supports in a ship to make it lighter and faster, but more vulnerable to high seas
 - a. Often no captain's cabin
- 4) Increase number of sails, sail square footage.

Ships near coastlines are often smaller and more maneuverable.

Often starting off with a sort of skiff.

On Pirate ships Africans were treated as equals, rank is based on skill not race.

Pirate ships were often a democracy, the captain is only in charge during combat.

Pirate superstitions:

- 1) No women on board
- 2) When you cross the dateline someone must be keelhauled.
- 3) Various other ceremonies

The Moscow public library has audio books for download.

Rabin of the day:

- 1) Debugging Games
- 2) Tough Debugging
- 3) Knowing the language is not enough; need to know the details of the hardware, ect.

Note: Homework 3 is due Thursday 2/24/2011.