Anima: A singular journey

Or: OpenGL is the easy part
Project Overview

I wanted to design a game that would follow the journey of a budding AI up through progressively more complex systems.

I also wanted to explore the differences between commercial-grade software and student-project software.

i.e., how much can one polish.
Broad Strokes - Software

- OpenGL through Jogl for graphics
  - No major problems here
- JFrame to perform windowing
  - Far easier than I thought
- Customized look and feel in Swing for GUI
  - As easy or as hard as you'd like
- JDBC to connect to mySQL database through OpenOffice Base
  - Not the implementation I thought - scrapped
Broad Strokes - Process

• Modified XP approach to ensure release viability
  – User stories – good guidance metric
  – Iterative development – semi-stuck to
  – Test-first development – good for game logic, not for graphics, less game logic than I thought
  – Refactoring – very handy

• Increasing graphical complexity of project as semester goes on
  – Allows for development of openGL knowledge
    • This has worked out well
Implementation Objectives

● Fully 3d environment in later levels
● Polished interface
  – Splash screens for loading and level changes
    • Not on that iteration, got behind schedule
  – Fullscreen display for game environments
    • No problems here
  – Customized look and feel to hide common Swing features – yes and no
  – Full soundtrack and sound effects – slight issues
  – Player profiles/player lounge – stubs till end
Game Outline

- Level 1 – Inside register – Binary addition
  - Good introduction, 80-20 rule
- Level 2 – Inside CPU – Projectile dodging
  - Felt a little repetitive, working on polishing
- Cutscene 1 – First 3D component, low-flying journey over northbridge and out to main memory, initially neon-wireframe
  - Blender issues
Game outline - continued

- Level 3 - Main memory – more strategic, player shifts through regular polygon forms
  - Felt clunky, scrapped and redrawn
- Level 4 – Computer system – first 3D level, bus line navigation with texture mapping, forging new body
  - Adapted graphics assignment logic with redrawn environment and refined controls
- Cutscene 2 – Not there yet
Game outline - Final

- Level 5 – wicked awesome stuff - tbd

- Final cutscene – See above
Architecture

• Main class GameManager displays background, manages profiles/player lounge and calls other modules.
• Moved event handling to inner classes
• Classes for each successive level, as well as sound
Conclusions

- Game logic less taxing than anticipated
- OpenGL friendlier than expected
- Game story/environments more difficult than anticipated
- Blender is awesome but evil
Going Forward

- Iteration 1 – 3/13 – First two levels & interface
- Currently on iteration 1.5 but should finish that up tomorrow.
- Unfortunately leaves only a single weekend for final details such as cutscenes and polish