CS 683 Emerging Technologies: Embracing Change
Spring Semester, 2001
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About this Course

CS 683 is a variable topic course

Each offering of the course differs

Normally cover 3 related topics

This semester

Theme - Change

Topics

- Refactoring
- Extreme Programming
- Squeak
Change

Software development on Internet time

Need for

- Short development cycles
- Changes in direction
- Respond to user feedback
- Continual change to existing software

Software is increasingly more complex

Application developed in new areas
Refactoring

Improving the design of existing code

Most code undergoes change and modification

With enough changes the best design will become a ball of mud

Refactoring is a simple but very useful process to restructure code in an attempt to maintain good design
Extreme Programming

Methodologies like RUP do not work well in all situations

RUP - Rational Unified Process

Lightweight methodologies are designed to handle change

Some current lightweight processes:

- SCRUM
- Adaptive Software Development
- Crystal Light
- Extreme Programming
- DSDM (Dynamic System Development Method)

We will look at Extreme Programming
Squeak

Squeak is an open-source version of Smalltalk from Disney

Why Squeak

- Smalltalk strength is rapid development and change
- Supports refactoring
- Squeak is open-source
- Squeak development is seeking
  Incremental change (pink plane)
  Paradigm shift (blue plane)
Order Of Topics

Squeak
Refactoring
Extreme Programming
Exercise

If you have a computer download and install Squeak 2.8 from http://www.squeak.org/

Make a copy of Squeak2.8.changes and Squeak2.8.image files

You will need clean copies of these files later

Start squeak (on Windows drag and drop Squeak2.8.image on Squeak.exe)

In Play with me 3 change the color of the text Squeak Rules

In Play with me 7 move the rabbit

In Play with me 8 play the William Tell Overture

Do this by class on Thursday February 1