Tablet PC Capstone
CSE 481b
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Course goals

Why a Tablet PC capstone

Interesting platform
Challenges in making pen computing useful
Wide range of directions for exploration

Course Model

• TabletSoft
  – New software company planning a broad offering of educational/entertainment TPC applications
  – Management has identified candidate products
  – Develop a set of proof of concept prototypes
    • Evaluate potential applications
    • Performance review of developers

Logistics

• Project ideas will be presented next
  – Complete the web survey to express project preferences by noon tomorrow (Jan 4, 2006)
  – Assignments will be announced Thursday, Jan 5.

Schedule

• Jan 19. Project vision
• Feb 2. Early prototypes
• Feb 23. Alpha version
• Mar 10. Projects due
• Mar 15. Final project demos, 10:30am-12:20 pm
Visual Studio Team System

- Visual Studio 2005
- Team Foundation Server
- Team Suite
- MSF for Agile Software Development

Logistics

- Department Lab Machines
  - Most Tablet PC development can be done on a Windows XP desktop machine
- CSE 003D, Tablet PC Lab
- Tablet PCs from Loaner Pool (Toshiba)
- Old Compaq Tablet PCs

The Projects . . .

- Handwriting Generation
- Playmaker
- Handwritten Slides
- Stupid Pen Tricks

1. Handwriting Generation

- Inverse of recognition problem
- Goal
  - System trained by an individual
  - Generate realistic appearing handwriting from typed text

2. Playmaker

- Generate motion from diagrams
- Potential applications
  - Simulation of actions
  - Input to sports or RTS game

3. Handwritten Slides

- Create an environment to support pen creation of lecture slides
- Text can remain as handwriting
- User centered design important
4. Stupid Pen Tricks

- Real Time Stylus allows low level access to pen to create many inking effects
- Develop a pen based game around "creative" ink
  - Pressure linked to size
  - Multiple strokes
  - Disappearing ink

5. Sudoku

- Tablet implementation of Sudoku
- Concentrate on playability issues with ink

6. Free form note analysis

- Develop post processing for handwritten notes
- Identify structure and content
- Search and cleanup scenario
- Large collections of notes available for project use

7. Ink replay with editing

- Develop system for capturing and replaying ink
- Support editing of ink (cleanup of strokes, correction)
- Scenario
  - Dynamic diagrams for education

8. Brainstorming tool

- Scenario – working on a problem set
- Structured operations on free form ink
  - Persist
  - Collapse

Submit Project Preferences

- Web Survey
  abstract.cs.washington.edu/~valentin/ProjectPrefs/questionnaire.cgi

- Submit by noon, January 4
## Project grading philosophy

- What do you want to get out of the course?

## Grading criteria

- Prototype
- Agile Process and VSTS Tools
- Deadlines and Presentations
- Code quality
- Design methodology
- Project Architecture
- Testing methodology and execution
- Engineering quality
- User Interface
- Release quality
- Development process
- User and technical documentation
- Technical Innovation
- Business Case for Application

## Implementation

- Initial weights
  - Prototype 40
  - Tools and process 10
  - Deadlines and presentation 10
- Assign remaining 40 points to at most 3 components
- Team evaluation criterion
- If team members don’t agree on evaluation criterion, the default is 80:10:10