Pen and Paper Games

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Overview

- Aims of the project
- Project structure
  - AI & Game logic
  - Recognition
  - Rendering
Aims

- Implement different Pen and Paper Games
- Have a working Tic Tac Toe in 4 weeks
- Extend and beautify
Structure

- Identify areas
- Split work

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<th>Framework</th>
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Framework

- Development environment
- Version control system
- Programming language (C++, Java)
  - Ongoing programming of different prototypes
  - Tests of graphics frameworks (OpenGL, QT, Java2D)
AI & Game Logic

- Depending on the game
- Tic Tac Toe is not too difficult (only 765 different positions)

Further readings
Recognition

- Simple algorithms for lines & circles
  - R. Avitzur. Your own handprinting recognition engine, 1992
- Doesn’t scale well

*Figure 2: The recognition process, as it handles the letter O*
Advanced recognition

- Investigate further
Non-photorealistic rendering

References

- J.D. Northrup, L. Markosian. Artistic silhouettes: A hybrid approach, 2000
- M.C. Sousa. Computer-Generated Graphite Pencil Materials and Rendering, 1999

Different styles

- Pen & paper
- Blackboard & chalk
Pencil Rendering

- M.C. Sousa. Computer-Generated Graphite Pencil Materials and Rendering, 1999
  - Very thorough and detailed
  - May be too slow
  - May not be cost efficient
Rendering Silhouettes

- J.D. Northrup, L. Markosian. Artistic silhouettes: A hybrid approach, 2000
  - May be fast
  - Versatile
Outlook

- Next time
  - Playable demo
  - Identified key points for learning
- Questions?