

Integer functions

- distant past: replace floating point calculations with integer manipulations
- present: who cares, because floating point operations are fast enough
- present and near future: what about mobile and light weight platforms? should we revert to integer manipulations?
- future: who cares (even in light weight platforms), because floating point operations will be fast enough

Low-level data structures

- encapsulated implementations of fundamental data structures
 - maintainability
 - reusability
 - reliability
- however, unnecessary (or even unwanted) at the lowermost application layers
 - communication buffers
 - memory allocation
 - ← efficiency!!

Outroduction

- §1 Introduction
- §2 Random Numbers
- §3 Game Trees
- §4 Path Finding
- §5 Decision-Making
- §6 Cheating Prevention
- §7 Code Tweaking

The intention, huh?

- to provide a glance into the world of computer games as seen from the perspective of a computer scientist

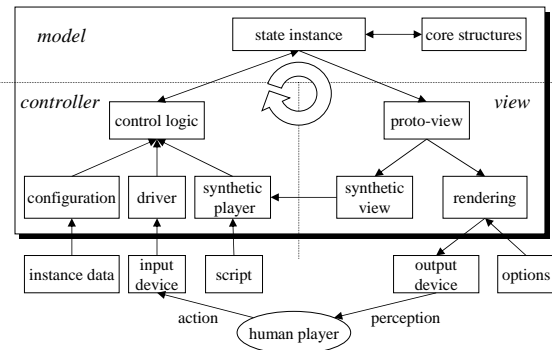
... and the topics were... 1(2)

- Random Numbers
 - if computers are deterministic, how to achieve indeterminism at all?
- Game Trees
 - given time and resources, how to solve perfect information games?
- Path Finding
 - observing the geography of the game world, how to get from one place to another?

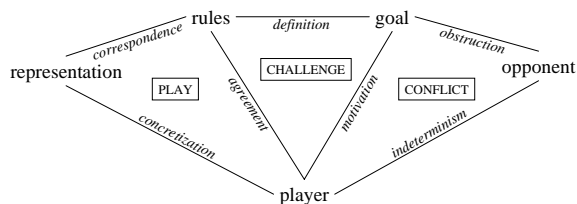
... and the topics were... 2(2)

- Decision-Making
 - being a synthetic participant on a game, how to interact?
- Cheating Prevention
 - if players are not trustworthy, how to ensure fairness?
- Code Tweaking
 - if feeling too clever by half, how to still code clever?

Model-View-Controller (re-revisited)



Game =_{def} ?



Bonus on grades

- deadline for submissions: November 17, 2003 (= week before the first examination)
- the winners (the ones to get a bonus on their grades) will be contacted personally via e-mail
- thank you for all your comments (past, present and future)!

Examinations

- the examination dates
 1. November 24, 2003
 2. February 2, 2004
 3. March 29, 2004
- check the exact times and places at <http://www.it.utu.fi/opetus/tentit/>
- if you are *not* a student of University of Turku, you must register to receive the credits
- remember to enroll!

Examination questions

- based on both lectures and lecture notes
- four questions, à 8 points
 1. statements: true/false/—
 2. short explanations
 3. an essay
 4. applying knowledge to a given problem
- to pass the examination, at least 16 points (50%) are required
- questions are in English, but you can answer in English or in Finnish