Sports Games Development

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Development is different

- Normal computer games are set in fantasy worlds
- Heavy emphasis on creativity, rather than advances in game design
- Challenge of sports development is in realism
- Emphasis is placed on subtleties of the game
  - User interface design
  - Player behavior AI
  - Character animations (celebrations, etc.)
  - Game audio and commentary
Development Challenges: The Rules

- Must implement every rule and must implement it right
- Balance in accuracy vs. user frustration
- Rules across different generations
  - Legacy rules vs. current rules
  - Since rules are hard-coded, it takes more effort to enable cross-era games
Development Challenges: User Interface

- User interface must be made to fit the sport
  - In other games, user interface and game are designed together.
- Athlete moves do not fit well to a normal controller
- Camera angles can be tricky
  - Baseball vs. Football, basketball, hockey, golf
  - Single player vs. multiplayer modes
Development Challenges: Player A.I.

- In action & shooting games, the AI exhibits a limited number of actions
- Athletes are real people, so the actions must be deliberate and intelligent
- Play in sports matches can be broken down into states, defined by rules and strategy of the game
- Each aspect of the play is a new state, then we set collective and individual goals
  - Players without any relevant actions are assigned fidgets, neutral actions
Player A.I.

FIGURE 16.3
A flowchart detailing part of the corner kick situation in soccer.
Creative Control

• Few opportunities to show creativity as game is a glorified simulation
• You can still be creative...
  • Athlete and team creation
    • Limit to disable creating unbeatable teams
  • Strategy Design
    • Risk of discovering an impossible to beat strategy
  • Playing field design
    • Sports such as baseball where the field size can be modified
Licensing

- League valuations have increased greatly in the past few years with improvements in broadcasting technologies
- Possible to develop an unlicensed game, but can bear no resemblance to a league or any of its players
- Different leagues have different licensing rules
  - License with the league may or may not allow the use of player names and other things etc.
- Old players, referees, broadcasters, TV networks all have separate licenses
MADDEN NFL

- First published in 1988 on Microsoft & Apple II by EA Sports, released the 25th anniversary edition last year
- Not redesigned and coded every year, but merely the artwork and video is updated
- Overhauled every 4-5 years, with the advent of new generation of game consoles
- Greatest challenge: assigning >40 ratings for each of the ~2600 NFL players
  - Donny Moore – ratings czar of the Madden franchise
  - Updated every week during the season
MADDEN Super Bowl Simulations

- Every year, since 2004, the Madden team runs a simulation of the Super Bowl teams, taking into account their tendencies.
- 9 – 3 record following the Patriots victory over Seahawks, including the correct final score of this year’s Super Bowl

<table>
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<tr>
<th>Super Bowl</th>
<th>Madden</th>
<th>Teams</th>
<th>Actual Score</th>
<th>Teams</th>
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<td>NE over SEA</td>
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Resources


