Group: Ikari Warriors
Melanie O'Neal (mfo264)
Stephen Ridings (sjr94)
Edgar Treto (et6482)
Andrew Vohl (acv563)

ASSIGNMENT 3 OUTLINE

*Updates will be in green

CODE ARCHITECTURE

- General Game Plans
    - 2 Player Maximum
    - Transient Game (of course)
- Networking Plans
    - One server, one client.
    - Sever controls game state and sends back to client.
        - This is useful for the physics of the game. We want both players to know exactly where the ball is.
    - Only using the lab machines.
    - Use TCP/IP and UDP (according to Wade Burch's wrapper)
        - Use UDP for sending/receiving invites.
        - We want reliability because ball positioning is very important.
        - Things we want to send:
            - Approximate Player Position
                - The other player really just needs to know if the ball was hit or not.
            - Exact Ball Position
                - Experience will more likely be enjoyable if players can make the ball move in interesting ways.
            - Score
                - Both players should know the score.
            - UI Mode vs. Playing Mode
                - Ensure that both players are stopped or both are active.
    - Game changes related to networking
        - Game objects are already abstracted.
        - We need to abstract out the controls/input.
        - UI Mode vs. Playing Mode
            - 2 separate classes
            - Global game state.
            - If any player is in UI Mode, both will have to stay in UI mode (perhaps with a dialog indicating which player is ready/waiting.

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GAME UPGRADES

At this point in time, these upgrades seem unlikely.

- Improved Player Controls
  - The ability to “swing” the racquet.
  - The ability to change racquet positions from one side of the player to the other (Like real tennis).
- Graphics
  - Character animation
- Power ups/Obstacles/Missile Launchers
  - All the pretty and fun doodads that we have time for and can think of.

DIVISION OF LABOR

Having “Primary” means that this person is in charge of a particular part of development (not that they work mostly on that part)

- Melanie O’Neal
  - CEGUI (Primary) /GUI
  - Documentation (Primary)
  - Networking
- Stephen Ridings
  - CEGUI /GUI
  - Documentation
  - Networking (Primary)
- Edgar Treto
  - Physics/Bullet
  - Game State (Primary)
- Andrew Vohl
  - Physics/Bullet (Primary)
  - Game State

SCHEDULE

- Week 1:
  - Document

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- Planning
- Physics/Bullet (Paddle movement in the bullet world)

- Spring Break:
  - Physics/Bullet (Anything unfinished)
- Week 2:
  - Networking (Not completed)
    - So far, we have been able to send a UDP broadcast with the host address, but clients are unable to receive this information. We have a good idea about how to implement the rest, but we are stuck on a few small details concerning parameters.
    - There isn't a lot to look at code-wise, but there was a lot of time spent learning and testing and running in the wrong direction.
  - Physics/Bullet
    - There were some major issues with the paddle being attached to a player. This caused us to need much more time than other groups. It is in the process of being fixed and very close to complete. We are trying to create the paddle as a stand-alone object rather than attaching it to a player. Once this works, we may attach the player to the paddle or leave as is.
    - Related to multiplayer.
    - Turn off collision for players when it's not their turn. (Not completed)
  - Game State
  - CEGUI
    - We tried using CEGUI, but it has been a big time waster. There are problems left and right that are more difficult than anticipated. Instead, we are going to use SDKTrays because it works and so that we can focus our time on functionality.
- Week 3:
  - Unfinished business (THIS – We will mostly have to finish up week 2's plans)
  - Game upgrades