Health Physics

- **Health physics** is a field of science concerned with the evaluation and control of health hazards and is focused on the safe use of radiation.
Problem

• How do we train a health physics professional?
• Self-administering a practice oral exam requires an entire board to carefully prepare and deliver a scenario
  – This is time-consuming and difficult
IPRO 329's Solution

- Develop an innovative health physics training simulation for Radiological Control Technicians (RCT)
Priorities

• Priorities for Spring 2008:
  • Modernize existing Graphical Display
  • Enhance realism of scenario
  • Ensure usability of the simulation
  • Produce a shippable product
Team Structure

- **Project Management**
  - Natalie Hammer, Electrical Engineering
  - James Runge, Physics
  - Mickal Kaska, Mechanical Engineering

- **Design**
  - Shubhi Sharma, Biomedical Engineering
  - Asad Akram, Electrical Engineering
  - Joel Huish, Electrical Engineering
  - Jeff Rebacz, Computer Engineering
  - Heajin Lee, Professional and Technical Communication
  - Ippei Iwata, Architecture/Structural Engineering

- **Development**
  - Joseph Lloyd, Computer Science
  - Mikhail Zaturenskiy, Computer Science
  - Daniel Rutherford, Computer Science
Project Management

- Information and task management
- IPRO deliverables
- Design/Development supervision
- RCT scenario
Design

• Scenes

• Inventory items

• IPRO 329 Website

http://www.iit.edu/~ipro329s08/
Design

• A total of 21 scenes were created

Before
Construction site scene created last semester

After
Construction site scene created this semester using Blender
Development

- User interface
- Item functionality
- Worker AI
Usability

- Usability testing was conducted at Argonne National Laboratory on April 11th
- 6 Health Physics Professionals reviewed the work to date
- Data was gathered and analyzed
- Product enhancements were made based on gathered data
The Product

- The RCT Training Simulation is a deliverable product based on the progress of IPRO 329 for Spring 2008
Product Demonstration
Questions?

IPRO 329 Team

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- Daniel Rutherford, Computer Science

Advisors

- Laura Batson
- Laurence Friedman
- Anthony Mcfadden
- Greg Pulliam