ipro 329

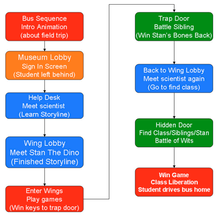
EDUTAINMENT

educating and entertaining one game at a time

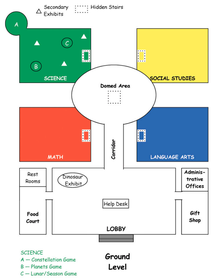
Progress & Results

Scholars of the Lost Exhibit

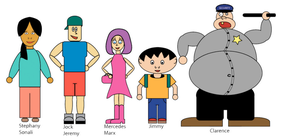
Design



Overall Game Flow



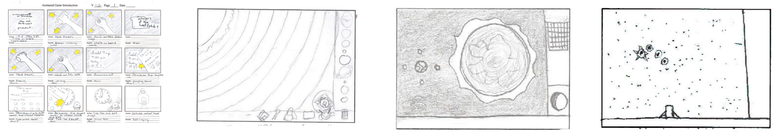
Museum Floorplan



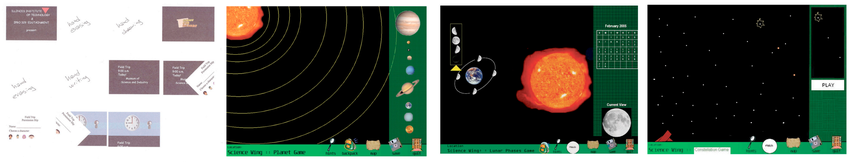
Adobe Illustrator finalized mockups

12 point character movement (see laptop at exhibit)

Character Development



Storyboards: Intro, Planet Game, Lunar Phase Game, and Constellation Game



Mockups: Intro, Planet Game, Lunar Phase Game, and Constellation Game

Storyboards and Mockups

User Experience

Solomon Elementary School Testing

Preparation

- Developed process for entering schools and studying students
- Created information packets
- Wrote up consent forms
- Obtained IRB approval for the study
- Obtained parental consent forms

Solomon Elementary School

User experience team members arrive at Solomon

School testing

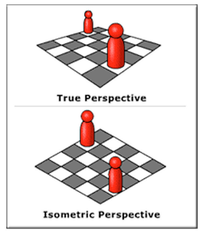
- 93% of students have a computer at home
- 83% of students play computer games
- Students tested a math game online
  - Game is called Bobber's Farm (seen at right)

Bobber's Farm helps students identify fractions, odd and even numbers, and prime numbers.

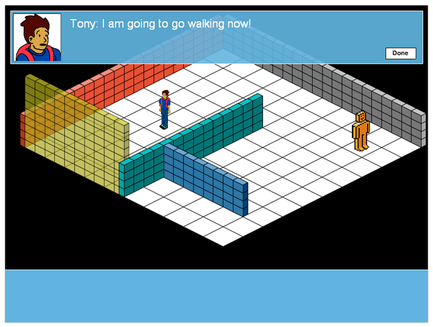
Development

Isometrics:

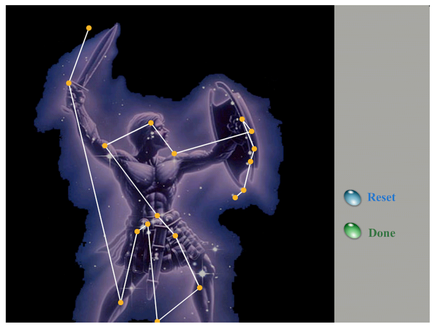
- Visual representation of three-dimensional objects in two dimensions.
- Requires a less powerful machine in comparison to true 3-D
- More immersive and interactive than the typical 2-D educational game



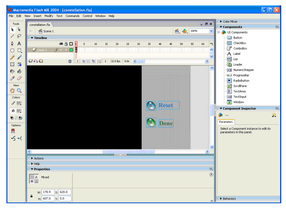
Implementation:



Implemented Isometric 3D Game World



Implemented Beta of Constellation Game

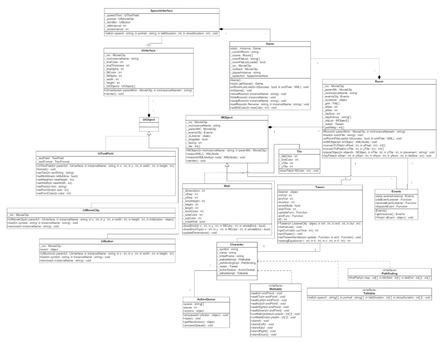


Flash MX 2004:

- Allows game to run on both PCs and Macs
- Direct interface for manipulating graphics
- Object Oriented Actionscript 2.0
- Small learning curve
- Native XML support

Scholar Gaming Engine:

- Core of Scholars of the Lost Exhibit
- Handles fundamental functionality
- Extendable and Flexible Object Oriented Architecture
- Reusability allows for faster production of future edutainment games



Scholar Gaming Engine Class Diagram

Scholar Gaming Engine Features:

Environment Creation
- Render and place objects in isometric rooms

Character Creation
- Character animation and movement such as walking
- Character speech and dialogue
- Artificial intelligence such as path finding

Event Handling
- Allows for simple and effective message passing between objects
- Provides for asynchronous callback functions

User Interfaces

Scriptable
- Dynamically change game elements
- Store environment, character and story data within external XML files
- Allows for changing and creating the game with recompiling
- Easy for non-programmers to make changes

Management

Progress over the semester

- Created and finished all IPRO Deliverables
- Implemented a versioning online file repository and standard naming conventions.
- Implemented peer evaluations for student appraisal and self improvment
- Recorded progress through weekly minutes
- Facilitated online communication and progress tracking with personal blogs.
- Designed a new logo for IPRO 329 and began developing marketing materials

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The new logo is bold and emphasizes the goal of IPRO 329.

Why T-shirts?

- Easy to create with new logo
- Unisex appeal
- Everyone feels like part of the IPRO 329 Team

The use of marketing materials, such as buttons, helps IPRO 329's public relations and connections. Furthermore, it shows that IPRO 329 is a serious business that wants to move forward in the educational gaming industry.

Want to know more? visit: http://www.iit.edu/~ipro329s05 contact: feinberg@iit.edu