

Educating and entertaining one game at a time



Presentation Outline

Introduction

Design & Development

Demonstration

User Experience

Introduction

IPRO 329 Overview

- Mission Statement:
 - "To develop computer games that educate as well as entertain"

- Past Games:
 - Credit Safe
 - College Pursuit

Current Game

Scholars of the Lost Exhibit

Began Fall 2004

- Audience
 - 4th & 5th graders

- Learning Aid
 - Math
 - Science



Project Goals

- Competitions
 - Society for Technical Communication (STC),
 October 13th, 2006

 Independent Games Festival (IGF), November 10th, 2006

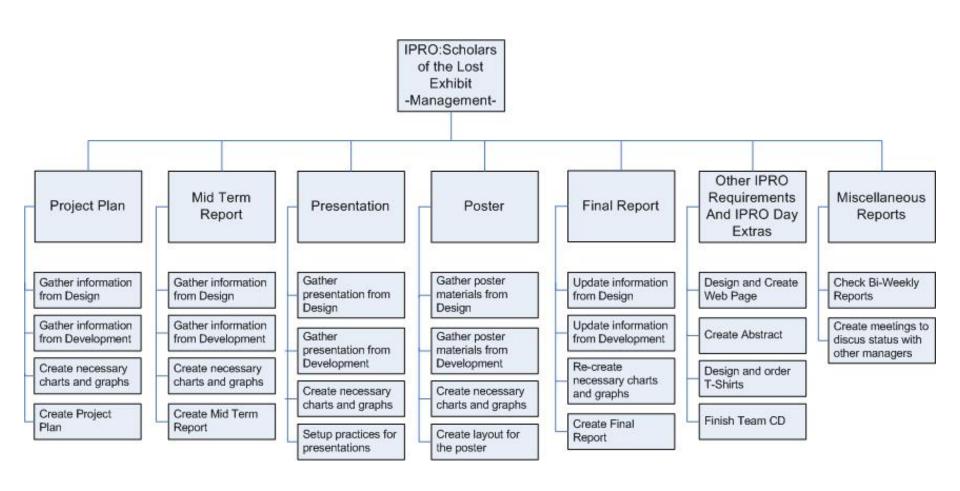
Project Planning

- Organized into subteams
 - Management
 - Design & User Experience
 - Development

Work Breakdown Structure (WBS)

Gantt chart

Sample WBS



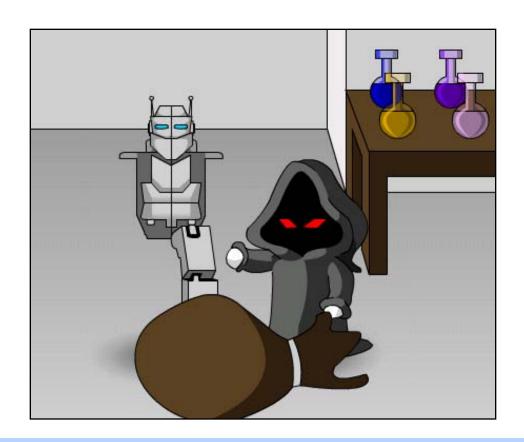
Sample Gantt Chart

ID	6	Task Name	Duration	Start	Finish	Resource Names	Aug 27, 8/27	'06 S	ep 17, '06 9/24	Oct 8, '0		ct 29, '06	Nov 19,
1	-	Fish Game	20 days	Tue 9/12/06	Mon 10/9/06	Mike S.	0/2/	9/10	9/24	10/8	10/22	111/5	11/19
2		Coding the story (instructions)	5 days	Tue 9/12/06	Mon 9/18/06	Mike S.							
3		Coding the design elements (scenery, layout, backgrou	5 days	Tue 9/12/06	Mon 9/18/06	Mike S.							
4		Coding in the designed Q&A	5 days	Tue 9/12/06	Mon 9/18/06	Mike S.							
5		Coding the designed point system	5 days	Tue 9/19/06	Mon 9/25/06	Mike S.							
6		Coding the error/success events	5 days	Tue 9/26/06	Mon 10/2/06	Mike S.				L			
7		Integrating with Museum	5 days	Tue 10/3/06	Mon 10/9/06	Mike S.							
8		Water Cycle Game	20 days	Tue 9/12/06	Mon 10/9/06	Michael M.		-					
9		Coding the story (instructions)	5 days	Tue 9/12/06	Mon 9/18/06	Michael M.							
10		Coding the design elements (scenery, layout, backgrou	5 days	Tue 9/12/06	Mon 9/18/06	Michael M.							
11		Coding in the designed Q&A	5 days	Tue 9/12/06	Mon 9/18/06	Michael M.							
12		Coding the designed point system	5 days	Tue 9/19/06	Mon 9/25/06	Michael M.							
13		Coding the error/success events	5 days	Tue 9/26/06	Mon 10/2/06	Michael M.				L			
14		Integrating with Museum	5 days	Tue 10/3/06	Mon 10/9/06	Michael M.							
15		Math Dungeon Maze	20 days	Tue 9/12/06	Mon 10/9/06	Shoby, Joseph							
16		Coding the story (instructions)	5 days	Tue 9/12/06	Mon 9/18/06	Shoby,Joseph							
17		Coding the design elements (scenery, layout, backgrou	5 days	Tue 9/12/06	Mon 9/18/06	Shoby,Joseph							
18		Coding in the designed Q&A	5 days	Tue 9/12/06	Mon 9/18/06	Shoby,Joseph							
19		Coding the designed point system	5 days	Tue 9/19/06	Mon 9/25/06	Shoby,Joseph							
20		Coding the error/success events	5 days	Tue 9/26/06	Mon 10/2/06	Shoby,Joseph			Ť.	L I I			
21		Integrating with Museum	5 days	Tue 10/3/06	Mon 10/9/06	Shoby,Joseph			Ĭ				
22		Museum Environment	20 days	Tue 9/12/06	Mon 10/9/06	Yun				→			
23		Coding the museum area	5 days	Tue 9/12/06	Mon 9/18/06	Yun							
24		New Character design	5 days	Tue 9/12/06	Mon 9/18/06	Yun							
25		Coding the characters	5 days	Tue 9/19/06	Mon 9/25/06	Yun			<u> </u>				
26		Coding the character movements	10 days	Tue 9/26/06	Mon 10/9/06	Yun							
27		Introduction/Ending sequences	5 days	Tue 9/12/06	Mon 9/18/06	Yun				-			
28		Improving Planet/Constellation games from last User Testing	10 days	Tue 10/10/06	Mon 10/23/06	Mike S.,Michael M.,Sl	-				<u></u>		
29		Improving Water/Fish/Dungeon after User Testing	10 days	Tue 10/24/06	Mon 11/6/06	Mike S.,Michael M.,Sl	-				<u> </u>	<u> </u>	
30		IPRO 329 Website	10 days	Tue 11/7/06	Mon 11/20/06	Yun						Y	

Design & Development

Plot Outline

 A field trip turns into an adventure when a professor's robot is stolen



Subgames

Fish in the Fountain

The Constellation Exhibit

The Planet Exhibit

The Water Cycle Exhibit

A secret, hidden Dungeon



Previous Semesters

Created concept designs

- Started code work
 - Museum element
 - 2 subgames

Organized hierarchical structure

This Semester

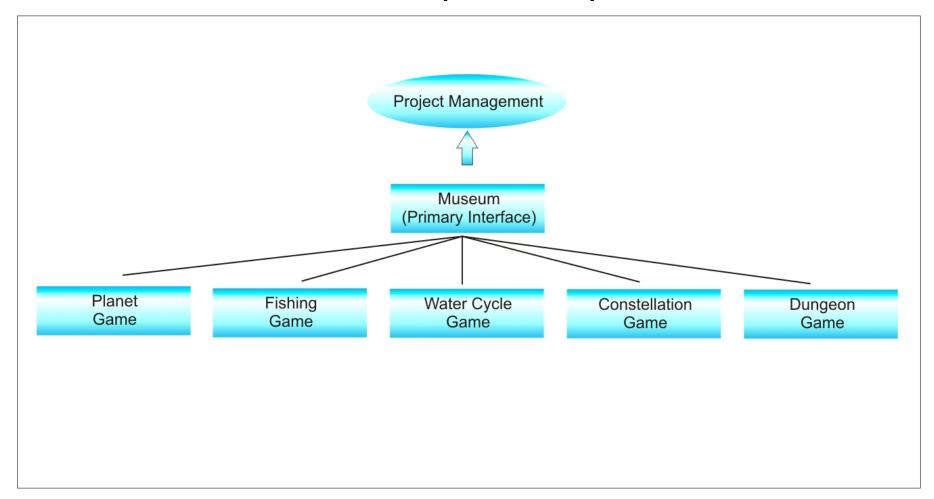
Interfaces

Graphics

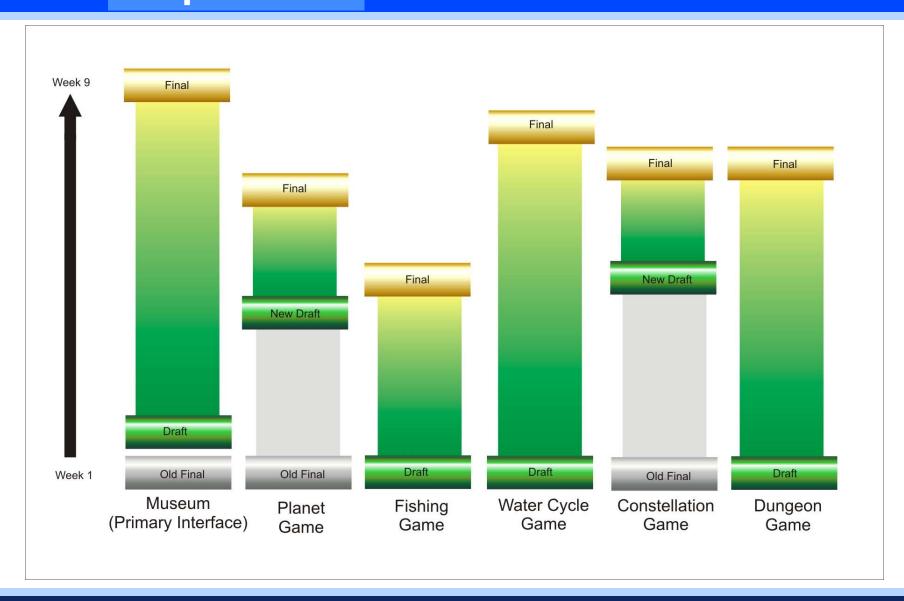
Packaged for publication

Development Hierarchy

Peer-reviewed, parallel, independent



Development Timeline



Development

Museum

- Interface for the whole game as player
- Bridge for linking subgames
- Most complex to develop



Development (Cont.)

- Subgames
 - Introduced new games
 - Developed planned games
 - Updated graphics and playability
 - New scoring systems and a reward certificate

Development Attributes

Fast

Stable progression

Productive content creation

 Macromedia Flash was the development platform throughout the semester

Final Product

Final Product

CD Box – Donated to IPRO

Printed CD, Printed jewelcase

Ready to install on any PC



User Experience

Usability Testing



14 fourth graders playing the game in groups of two

User Experience Insights

- Strengths
 - Intuitive
 - Supported Team-Play

- Improvements
 - Unsatisfying Ending
 - Repeat Questions

Intuitive

Little reliance on written instructions

Didn't need help from us



Supported Team-Play

Mini-games support team play

Both players help answer questions



Unsatisfying Ending

Unrealistic

Not challenging enough





Repeat Questions

Non-randomized questions

Small question database



Conclusions

Next Semester

- New game
 - Design
 - Development

- Scholars of the Lost Exhibit
 - Improve
 - Market

Acknowledgements

- Jewelboxing Inc.
- Dr. Susan Feinberg

- Mark Sheridan Math & Science Academy
 - Asst. Principal JeanSachs

 All Current & Previous IPRO 329 Students

IPRO Office

All of our guests today!

Questions