

CIS 54.1: Project 1

A programmatically complex game in FLASH

Proposal document due: October 13th, 2010 (by midnight).

All other materials due: November 10th, 2010 (by midnight).

Description: For this project, you will create a working, playable and bug free game in FLASH CS4 using Action-Script 3.

- You may choose from any genre you wish.
- Your game must be relatively complex (NO PONG!).
- The bulk of your game code should be located in a single ActionScript file called "game.as".
- Your game should utilize at least one of the "Design Patterns" that we covered in lecture 3.3.
 - Component Systems
 - Object Factory
 - Singleton
 - Observer modeling
- You have four weeks to create a **working** game, so design and engineer carefully to make sure you are done on time.
- Your game can be in a "beta" state (missing levels as an example) but must be playable.

Note: This game will be the second game in your portfolio. The first game was designed to give you an opportunity to show that you know about the history, hardware and social aspects of computer game programming. This second game will give you a chance to show that you understand key programming concepts and models as they relate to game programming. Your final game will give you a chance to talk about physics and 3D in game programming.

Submission:

Your group will email to me one copy of a zipped folder containing:

- Your flash document (.fla)
- Your "game.as" file.
- Your "FlashClasses" folder.
- Any other necessary game files.

Each Individual in each group will email me the "project completion" document (described below).

Grading:

This project is worth 20 points

1. The proposal document (2 points).

This is described in a separate handout.

2. The game. (15 points)

Required elements:

- i. Animated title screen.*
- ii. In game instructions (could be on an instruction screen).*
- iii. Multiple interacting objects*
- iv. Animated objects (changing shape, not just position)*

v. *A player controlled object.*

vi. *Sound*

Other grading factors:

vii. *Is the code well structured? (include comments!!!)*

viii. *Is the game well designed (goals, rewards, choice)?*

ix. *Is the game fun? Why?*

x. *Multiple levels, difficulty settings or modes of play?*

xi. *Was there a game in development at week 1?*

xii. *Was there improvement at week 2?*

xiii. *Was there improvement at week 3?*

xiv. *Is the final game fully functional?*

1. *Scoring? Victory conditions?*

2. *Multiple levels or modes of play?*

3. *Multiple difficulty settings?*

4. *Is the game bug free?*

xv. *Is there a clear implementation of at least one design pattern in the game?*

3. Your 1 page "project completion" document. (3 points)

I. Layout

i. Name, Date, Class at top of paper.

ii. Single spaced paragraphs.

iii. Arial, 12 point font.

iv. 1 inch margins

II. Content

i. Description of the mechanics, dynamics and aesthetic parts of the game. Make sure to mention what design pattern(s) you used.

ii. Description of any difficulties or problems you faced developing the game.

iii. Rating of each member of your team (including yourself) and how significant their contributions were to the development of the game in each of the areas (mechanics, dynamics, and aesthetics). Note: Rankings should total to 10.

Example:

	<i>Mechanics</i>	<i>Dynamics</i>	<i>Aesthetics</i>
<i>Bob</i>	7	1	3
<i>Carol</i>	2	7	6
<i>Steve</i>	1	2	1

NOTE: In order to make it easier to grade, it would be helpful if it is possible to play through the game (and see all the great stuff you did) without becoming an expert at the game.

Tools:

This assignment will require you to use of the FLASH CS4 programming environment and the Action-Script 3 language. It might also be helpful for you to use a paint program that you are already comfortable with.

We will then begin the grueling task of playing all your games, in class.