CS4455 Fall 2012

Dedication

Acknowledgements

Overview

About

By Blair MacIntyre

Anthologized by: Blair MacIntyre

Attributed to: Blair MacIntyre

This site is being used for the Fall 2012 offering of CS 4455, Video Game Design and Architecture, at Georgia Tech.

The class is being taught by Blair MacIntyre.

Syllabus

By Blair MacIntyre

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Instructors

- Blair MacIntyre, blair@cc.gatech.edu
  Office hours: Â 3-4 M (TSRB 231), 1:30-2:30 Thursday (tables outside of class).
- Teaching assistants
  - Yan Xu <yan.xu@gatech.edu>
  - Afshin Mobramaein <mobramaein@gmail.com>
- TA Office hours
  - Yan: Â 10am-12pm Wednesday (TSRB 232)
  - Afshin: 4-7 on TuesdayÂ (TSRB 232)

General Infromation

- Meet Tue/Thu Klaus 1447
- Textbook: Game Feel: A Game Designerâ€™s Guide to Virtual Sensation, by Steve Swink.
- Other suggested books include:
  Game Design Workshop, by Tracy Fullerton
  The Art of Game Design: A Book of Lenses, by Jesse Schell
- You are required to learn and master Unity3D. Â You should start immediately, if you do not know it already, and leverage the vast wealth of online tutorials and help.
- Consider buying the academic/student version of Unity3D Pro with Asset ServerÂ (3.x appears to not be available right now, butÂ Unity3D 4.0 coming out soon!). Â It is only $99 for one year subscription (compared to $2000 retail).

Â The Asset Server client license, in particular, will be a great benefit if you do not want to work in the lab.

Summary

This class is a project based class on Video Game Design and Architecture. Â At the end of the semester, you will work in groups of 3 students to design, prototype and test a 3D video game using the Unity3D game engine. Â Before then, you will learn about game architecture and some elements of game design, but particularly how to build responsive, interactive games that *feel* good. Â You will build a number of small game prototypes before you begin to develop your game, to learn how to build interactive game mechanics and controls.

Every student in the class will build three game interaction/mechanic prototypes by themselves, and will be expected to contribute significantly to their teamâ€™s game. Â This is not a â€œprocessâ€ class, where each member takes on a well-defined roll, with some programming, some designing and some managing. Â Nor is this a â€œdesignâ€ class, where we focus on the overall design process for games. Â Rather, this is a game architecture and programming class, where each member of the team is expected to take on many roles to ensure the game is completed and working before the due date.

While this is not primarily a game design class, we will discuss the elements of games, and some ideas on game design, in support of you building games. Â The main goal of this class is to understand how games are built (game architecture) and how the elements of a game engine are leveraged to build interactive experiences that are a pleasure to play. Â While there are many parts to a game, from the story to the content to the levels, the part we will focus on in this class is how to build the second-by-second interactive experience such that it is fun and enjoyable to play. Â In many ways, this is the core element of games that distinguishes them from other digital systems.

Beyond learning how to build engaging and fun interactions, building prototypes to test such interactions is useful because a major part of designing a game is testing and refining Â the prototypes of the various parts of the game, especially the game mechanics, controls and interactive elements. Â Since games are as much about the *feel*Â of the experience as they are about the technical implementation, testing and refining how the game feels and â€œplaysâ€ is critically important. Â Therefore, a goal of this class is to give you experience developing such prototypes for a game you are building.

Grading

The grade for the class will be computed as follows:

- Class participation: 3%
- Individual Assignments: 7% (4% a0, 3% a1)
- Individual Prototypes + Critiques: 40% (10% for p1, 15% each for p2, p3)
- Initial Group Game Project Pitch: 4%
- Alpha Milestone: 10%
- Playable Complete Game Milestone (for final playtesting): 10%
- Final Presentation, Video and Materials: 10%
- Two midterms: Â 16% (8% each)

Late Policy

Late submission will have 25% taken off the grade immediately, and an additional 25% taken off for each additional day. Â A day is 24 hours from the specific time the assignment is due (e.g., if something is due at 6am Monday, and it turned in at 6:01am Monday, it is 25% off; Â if itâ€™s turned in at 5:59am Tuesday, itâ€™s 25% off but will be 50% off at 6:00am Tuesday).

Assignments

The major activity of the class is centered around the group project (below), but there will be one individual early assignment (â€œassignment 0â€³) worth 5%.

The Project Web Page

Each team is expected to maintain a webpage that will be linked to from this site. Â This page will, in turn, have a list of group members, the game design idea, all the game turn-ins, the final game, all game prototypes, and the final video. Â The content should be neatly and concisely laid out on this page. Â All game projects are expected to be targeted to Unityâ€™s

web plugin, so all of the game milestones will be playable on your web page, and available to the your classmates and anyone on the internet who stumbles on your page.

Project

The final project will be done in groups of 3. Â Not 4, not 2. Â But 3. Â Teams will be formed after fall break, and an initial game pitch will be done by each team.Â Each team will then work on their game over the last month of the semester. Â There will be two major milestones (the Alpha build, and a final complete build, both of which will be play-tested in class.)

The game project is best thought of as â€œ30 to 60 seconds of pure fun that demonstrates the core fun of your game idea.â€ Â The emphasis is on demonstrating the fun. Â The game should play well for that brief period, and it should be clear to the player where this game would go if it were to become real. Â Polished art is not necessary, but should be clean enough to not interfere with the experience; opting for a clean geometric world rather than â€œcobbled together mismatched modelsâ€ is a good idea. Â You will NOT get additional credit for things unrelated to the fun of your core idea: no complex levels or level editors, no generalized internal structures, no super-cool animated 3D characters, etc. Â But the critical elements of game feel (as described in the text and in class) are important, insofar as they contribute to a smooth and compelling game experience.

A summary of the elements of the project are as follows (additional details will be provided in class and on separate pages):

- The Pitch will be short (3 mins) and have follow a fixed format (we will provide more detail separately). Â The focus should be on the â€œcore ideaâ€ of the game.
- Alpha. Â The Alpha should be an initial playable demo. Â It should demonstrate the central part of your game, and allow you to get an idea (and feedback) about whether you are going down a good path with your game. Â You will bring these to class, and we will use two class periods to allow students to play each others games and give their feedback.
- Final Playtesting Build. Â You will be expected to have your game 99% complete by the time we playtest in class. Â After the playtesting, you may continue to tweak the game based on what you learned (e.g., adjust balance, update some content or technical bugs, etc) but this should be purely refinement. Â Adding features after the playtesting build, rather than adjusting features that were there, will NOT count toward your final grade.
- Final Presentation. Â You will present your game, including showing a short video (less than three minutes) documenting your game. Â You should also present what you learned, and what you may have changed since the final playtest; Â what did your game do and not do; Â what you would do differently.

Collaboration

By Blair MacIntyre

Anthologized by: Blair MacIntyre

Attributed to: Blair MacIntyre

You are expected to collaborate significantly in this class, EXCEPT for those parts of the class that are specifically designated as individual work. Â These are Assignment 0 (the Unity warmup assignment) and the prototypes that each student must build.

Asking for help with Unity issues, suggestions for how to accomplish certain things, and so on is fine on these individual assignments; Â as long as the project and prototype you create are yours. Â For example, you can get a pointer on how to implement something, but you should then do the implementation in your project.

If you get code from somewhere, either a Unity tutorial, web page or forum, you are allowed to include it as long as you document what you got where. Â The prototype should have a significant element of your work; Â it is not acceptable to get a working prototype from somewhere and modify it slightly and turn it in. Â The goal of the class is for YOU to demonstrate that you have learned how to create a working prototype.

If in doubt, ask.

Schedule

By Blair MacIntyre

Anthologized by: Blair MacIntyre

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Below is a schedule for the class. Â We will update this page if the schedule changes, and post to blog about the changes.

Date	Travel	Topic	Assignment
Aug 21		Overview and Introduction to Game Feel	
Aug 23		Game Feel contâ€™d, Intro to Unity3D	GF CH 1 & 17
Aug 28		Prototyping (Guest Speaker, Brad Merritt,Â Cartoon Network)	
Aug 30		Game Feel: Perception and Interaction	GF CH 2-3 A0 due
Sep 4		Physics and Collision (Physics Slides, Unity example from class)	
Sep 6		Game Feel: Mechanics	GF CH 4 A1 due Â in class
Sep 11		Game Feel:Â Input and ResponseÂ (gamefeel-ch5-6-7)	GF CH 5-7
Sep 13	Prof in DC	Formal Elements of Games (Formal Elements of Games)	P1 due
Sep 18		**MIDTERM 1**	
Sep 20		Game Feel:Â Context and Polish	GF CH 8-9
Sep 25		Game Feel:Â Metaphor and Rules	GF CH 10-11
Sep 27		Game Engine Architecture	P2 due
Oct 2		Brainstorming, Case Studies	
Oct 4		Networking	
Oct 9		Networking	
Oct 11		In class P3 rapid-fire showcase **Drop Deadline**	P3Â due
Oct 16	FALL BREAK		
Oct 18		Group formation, activities	
Oct 23	GVU 20	Group Pitch in class	Project design proposal
Oct 25	GVU 20	Game Design and Balancing	
Oct 30		Game AI	
Nov 1		**MIDTERM 2**	
Nov 6	ISMAR	*Alpha demos in class*	Alpha due
Nov 8	ISMAR	*Alpha demos in class*	
Nov 13	IPAT Forum	TBA	
Nov 15	IPAT Forum	TBA	
Nov 20		TBA	
Nov 22	THANKSGIVING		
Nov 27		*In Class Playtesting*	Game Complete
Nov 29		*In Class Playtesting*	

Dec 4	*Final Presentations*	Final Materials Due
Dec 6	*Final Presentations*	
Exam Week	*Final Presentation Spillover*	

Assignments

By Blair MacIntyre

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There will be one assignment (Unity Warmup) and three individual prototypes per person, in addition to the group project.

- A0: <u>Unity Warmup assignment</u>
- A1: <u>Mechanics of Game Feel</u>
- P1: <u>Same game structure, two different feels</u>
- P2: <u>Make something feel like this!</u>
- P3: <u>What do you want your game to feel like?</u>

Assignment 0: Unity Warmup

By Blair MacIntyre

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For this assignment, you are to modify an existing Unity Tutorial and publish the results to a web page. Â As the DGML is likely not available till a few weeks into the semester, this assignment also serves to get everyone to set up Unity (free version) on their own computers.

Please submit the URL of the web page in t-square (we will create an assignment submission, you can submit this there).

Assignment #0 is due at 11:55am on Thursday August 30th (i.e., immediately before class).

Your modifications should satisfy the following requirements:

- Add your name to the HUD (2D heads-up-display) of the game.
- Make one or more non-trivial changes to the scripts. The changes should result in some visible change to the game. If you are unsure if your changes are substantial enough, ask.
- Make one or more non-trivial changes to the 3D graphics content of the game. The changes should result in some visible change to the game. If you are unsure if your changes are substantial enough, ask.
- Document your changes on the web page you publish the game to. Include the details of your changes, and what a player (or grader!) should do to experience them. Include the modified scripts with the changes documented.

A1: Applying the Mechanics of Game Feel

By Blair MacIntyre

Anthologized by: Blair MacIntyre

In Chapter 4 of the text, Swink takes the mechanics developed in the first 3 chapters and applies them to four games.

Your assignment is to do the same thing, to a game of your choosing. Â You should model your work on the four examples in chapter 4, with respect to length and depth.

Each student must do a different game: Â please sign up for a game on the t-square wiki page for assignment 1. Â First come first served!

You should turn in your assignment 3 ways:

1. on t-square (inline, in the submission form).
2. you should post it to the class blog under the category â€œAssignment 1â€³.
3. finally, you **MUST** print out your analysis and bring it to class; Â we will use them for an in-class exercise.

(Any post made with category â€œAssignment 1â€³ will not show up on the front page, but rather be on the appropriate category page)

P1: Same game structure, two different feels

By Blair MacIntyre

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For your first project, you should create a simple side-view, orthographic â€œplatformerâ€ toy (not really a game, since there are no enemies or goals).

The project is due at 5pm on Friday Sept 14.

There should be a floor at the bottom, walls on the left and right edge, and at least 3 platforms. Â The screen should be fill a 4:3 aspect ratio display.

You should create an avatar that can jump between these platforms. Â This avatar should be very simple:

- built out of Game Object that has two children (a Sphere and a Cube).
- the two parts should have their movement coordinated to make them appear to be one moving avatar.

The avatar should move around using the ASWD keys and the space bar to jump. Â The main task of the assignment is to create two different avatar behaviors that give two different feels:

- Heavy, powerful, on earth
- Light, quick, on moon

You should use textures, motion of the avatar parts, graphical effects, and sounds (background sounds and/or sound effects), as you see fit: Â do whatever you can to create a compelling experience for the player.
You should NOT use the physics engine, except for detecting collisions between objects. Â All avatar motion should be done by changing the transformations on the three game objects representing your avatar.
You should be able to switch between these two by pressing the 1 and 2 keys.
A simple starting point for your toy might look like the image below.
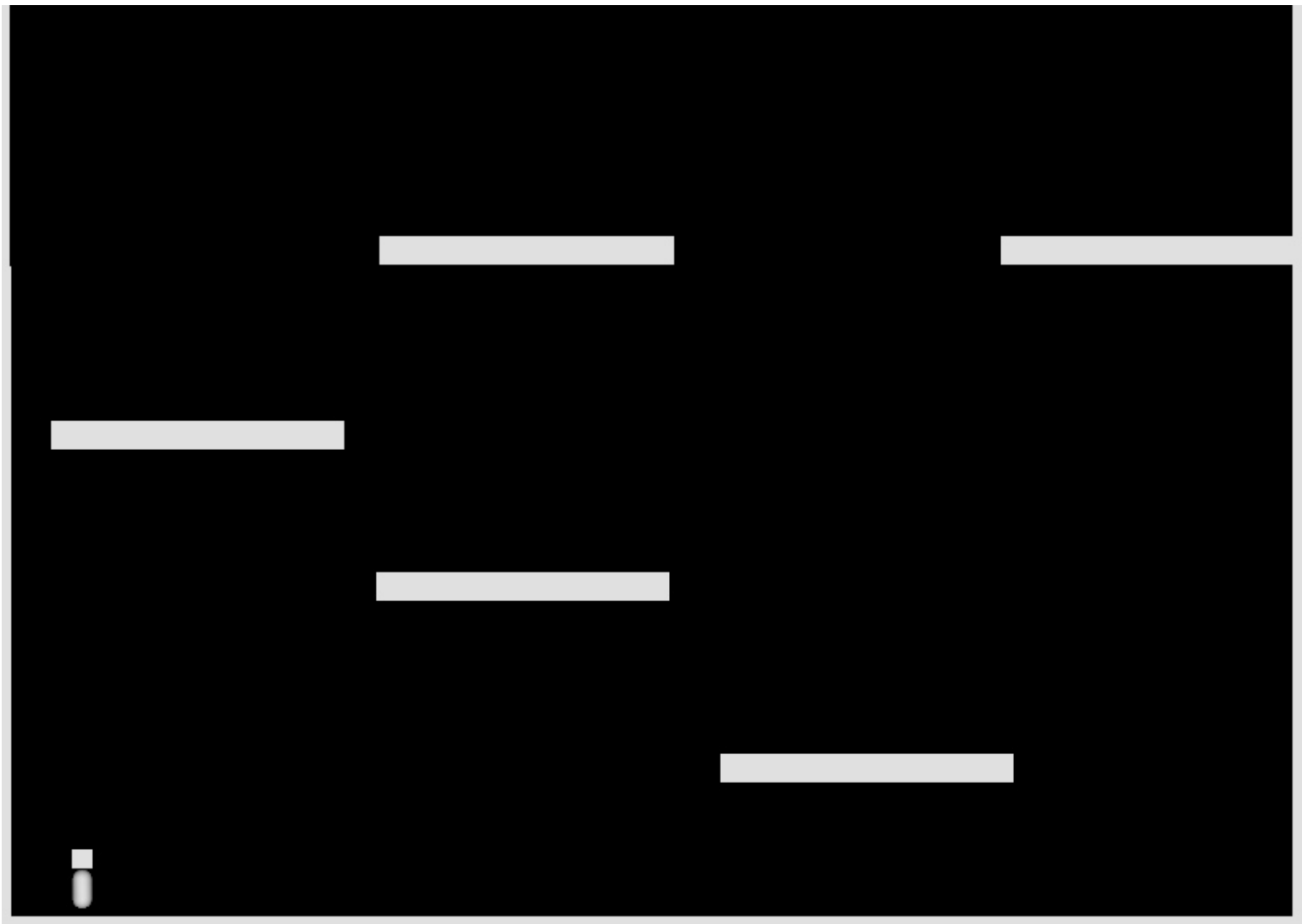
You will turn your project in two ways:

1. By zipping up the entire Unity project and uploading it to t-square. Â Please keep your assets small (if you use textures and sounds), and remove any unused assets before you zip up the project, so that the upload is as small as possible.
2. By creating a blog post on this blog, under the category â€œProject 1â€³ (ed: sorry it said â€œProject 2â€³, most of you got it). Â As with assignment 0, these will not show up on the home page, only under the category page.

P2: Make something feel like this!

By Blair MacIntyre

Anthologized by: Blair MacIntyre

Attributed to: Blair MacIntyre

For your second project, you should create a simple 3D world game toy (not really a game, since there are no enemies or goals).

The project is due at 5pm on Friday Sept 28.

The world should be a large flat surface, which a texture of some sort on it so you can see the 3D space, distances, etc. Â The world should have a bunch of cubes in it. Â In this way, it is similar to the simple world in Example 1-1 from the book (see the runnable example on Swinkâ€™s webpage). Â Unlike example 1-1, you should not use a 1st person view, but rather a

3rd person view of an avatar composed of a few primitive objects (spheres and/or cubes, for example). Â You can use a similar avatar as P1, or change it as you desire, but please stick to a few primitive shapes (i.e., no animated 3D models).

As with the first project, in this project you should focus on creating an avatar that can move around in the world, and jump on and off the cubes you've scattered throughout the world. Â Â The avatar should move around using a combination of the ASWD keys and the mouse, and use the space bar to jump. Â The main task of the assignment is to create a single avatar behavior that would be described by someone else using 2 of the following adjectives :

- pensive
- dreamy
- bashful
- joyful
- arrogant
- sinister
- seductive
- heroic

You should use textures, motion of the avatar parts, graphical effects, and sounds (background sounds and/or sound effects), as you see fit: Â do whatever you can to create a compelling experience for the player.
Unlike P1, you are free to use the physics engine if you want. Â However, you should carefully consider if you want to do that, or if you want to control the animations as you did in P1. Â The choice is yours.
You will turn your project in two ways:

1. By zipping up the entire Unity project and uploading it to t-square. Â Please keep your assets small (if you use textures and sounds), and remove any unused assets before you zip up the project, so that the upload is as small as possible.
2. By creating a blog post on this blog, under the category "Project 2"³. Â As with assignment 0, these will not show up on the home page, only under the category page. Â NOTE: Â you are to publish your game to the web, you are not supposed to just provide a link to something to download. Â You can either use the WP_Unity plugin to post it inline on the blog, or publish it to your own website and link to that page. Â If you publish in your blog post, PLEASE use the "more tag" ABOVE the unity plugin so that the page of full posts does not have unity games on it.

Categories

P3: What do you want your game to feel like?

> By Blair MacIntyre
>
> Anthologized by: Blair MacIntyre
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> Attributed to: Blair MacIntyre

The purpose of assignment three is threefold:

- To have each of you think through, and then pitch, a game idea
- To implement a game-feel prototype based on your own ideas of what you are trying to accomplish
- To provide a starting point for group formation for your final project

For this project, you will turn in 5 things (details below).

1. (on the blog) AÂ **Game Description**, and a set ofÂ **Goals**Â for your prototype. Â DueÂ **Friday Oct 5th, 9am.**
2. (on the blog) Add yourÂ **Game Prototype**Â to the blog post turned in the previous Friday. Â DueÂ **Thursday Oct 11th, 9am.**
3. (on t-square) YourÂ **Game Prototype**Â project. Â DueÂ **Thursday Oct 11th, 9am.**
4. (on t-square) A three-slideÂ **Powerpoint Pitch File**Â that will be used in class that day.Â DueÂ **Thursday Oct 11th, 9am.**
5. (post somewhere, downloadable by professor) AÂ **30 second video**Â showing off your

prototype. Due **Thursday Oct 11th, 9am.**

The first part, a game description and set of goals for your prototype, is due **this Friday**, at **9am**. I will give you feedback on this on this Friday or Saturday: this feedback will focus on things you need to improve or change, especially in the goals for the prototype.

Everything else is due next Thursday at **9am. You will be presenting in class on Thursday Oct 11th.** The presentation will be exactly 1.5 minutes, as described in the Powerpoint submission section below.

You will present in alphabetical order, but I expect everyone to be there for the whole class. We will take attendance before we start.

IMPORTANT: I will be taking the powerpoint file you submit, and your video, and making them into a time presentation. If they are late, you will receive the usual 25% deduction, but if they are turned in too late for me to add them to the presentation, you will get 0 points on the part of your grade that is based on the class presentation that day. Too late very likely means "after 10 or so" since I will be assembling the file before heading to class. I will not be able to add a bunch of late files, and so if you give me the file late, I won't be able to use it and you will be stuck presenting without.

GRADING: This project is 15% of your grade. The breakdown of grades is

- 4% for the game description and goals turned in Friday
- 5% for the presentation (quality of the powerpoint for presentation in this time frame, quality of the video for conveying your prototype, clarity of presentation)
- 6% for the prototype itself (including how well it meets the goals)

The presentation grade will be partly based on the quality of the video and the slides, but will also be partly based (and half and half) on the quality of the presentation itself. Practice, and be prepared. This is VERY little time, and you should know exactly what you want to say ahead of time. It will be obvious to us if you are winging it or otherwise poorly prepared, and you will be penalized appropriately.

Game Description

Your must sketch a summary of a possible pitch for a game. You will put this on the blog, as the first section of your post. You should put a title and one sentence description, then use the "more" tag to put most of the content on the single page post view.

The game you propose MUST exhibit all three aspects of Game Feel, according to Swink's definition.

This pitch should be short, and include

- An overview paragraph, with the high level idea of the game (2-3 sentences) and the setting, theme, metaphor, setup (2-3 sentences). This paragraph describes the "idea" behind the game and the player experience you want to create.
- A paragraph summarizing the goals the player has, the challenges the player faces (e.g., enemies to avoid, skills to learn, etc).
- A paragraph about what the player does (second by second in the short term, minute by minute in the medium term). What is the feel, what are the core mechanics, where is the fun for the player, how does the world react to the player, etc.

This is not a complete design document, or a detailed pitch. We don't expect you to have everything worked out. Think it through, well enough to give you something fun to aim for in your prototype.

It should be clear where you think the fun is, what would be "cool" about the game. But, do not get bogged down in details that you don't really know the answer to yet. Focus on explaining why it would be fun!

Goals for Your Prototype

The goals will be a second section of your blog post.

As part of your initial submission, you will propose what your goals are for the prototype. Â What are you going to build, and why? Â Why is this prototype essential for both (a) demonstrating the fun of the idea, and (b) testing out some assumptions or ideas you have about mechanics, interactions and play.Â Summarize your objectives in a paragraph or some bullet points.

What you prototype is up to you, BUT I expect that it will be heavily weighted toward the feel of the characterâ€™s avatar and how it feels to play with it. Â (Consider that the point of doing projects 1 and 2 is to gain experience at experimenting with giving a player the essential feel of you game idea, and in testing it out and debugging it.) Â Think about Bradâ€™s guest lecture, and the early iterations he did with the squid game. Â While some of them were technical and some aesthetic, all of them were aimed at giving the avatar the feel he wanted.

Game Prototype

You will turn in your prototype similarly to how you have turned in the prototypes P1 and P2 (putting a playable game on the blog, and uploading the project file to t-square).

You will go back and edit the blog post you did for the game description/goals, and add the prototype to the bottom.

This time you MUST make sure your game is on the blog, not just a link to your own page. Â You MUST put your .unity3d file in the P3-files resources directory on t-square, and embed the player in the blog post using the Unity shortcode (and, of course, be sure to use the â€œmore tagâ€ to ensure the game only appears on the single-page view).

Powerpoint Pitch File

You must turn in a powerpoint file with EXACTLY 3 slides. Â I will append all of these slides together, and set them to auto-play them for exactly 30 second each. Â The 3 slides should contain

1. *AÂ title for the game you are pitching, your name, and a one sentence summary of the idea*. Â You should use this 30 second to start your pitch and summarize the idea for your game, and why it would be fun.
2. *An image and a few bullet points summarizing your prototype.*Â You should use this 30 second to talk about what Â you tried to do, what worked, and what were you not able to do.
3. *An empty slide on which I will place your video.*Â You can talk over your video or not, as you see fit. You should expect it to start automatically.

Video

You should create a 30 second video. Â The video should show the fun. Â It could be as simple as a 30 second clip of a recorded gameplay session, or you could clip together multiple sessions. Â There are many easy ways to record movies from the screen. Â On MacOSX X, Â you can do a screen recording with the Quicktime Player, that captures both game audio and the microphone. Â On Windows, utilities like FRAPS are inexpensive and very good (there is a free version that puts a watermark on the video, but we have a fraps license for the digital media lab machines, so you should be able to capture there without the watermark you normally get on the free version). Â Donâ€™t waste time with fancy editing, and please make sure you set up the video such that you can say what you want over it (since it will start playing automatically when itâ€™s slide starts).

When you are done, put it somewhere that it is easy to download. Â Â PLEASE, do NOT just put it in a web directory, as it is difficult to download videos with URL in a web browser (most browsers just play them). Â Put it in Dropbox and submit a shared URL; Â put it on t-square in the P3-files directory, and submit a pointer to it. Â Whatever you do, TEST that it can be downloaded on MacOSX (what the prof and TAs use).

Categories

Final Project

By Blair MacIntyre

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The [syllabus](#) page gives an overview of the project, and the various deadlines are listed on the [schedule](#). Â Here, we provide more specific details.

Your Project Deliverables: Â The Class Blog

Rather than requiring a webpage, youâ€™ll simply continue using the class blog for your submissions, as follows.

Each team will have an identifying category for their group, as a sub-category of â€œGroups.â€ Â For each deliverable, the group will do a blog post, categorized with their group category. Â The â€œdescriptionâ€ of the group should provide an appropriate one sentence summary of their group. Â The first post will be a summary of the project, including a list of group members, the game design idea, etc. Â Additional posts will be added for all the game turn-ins, the final game, all game prototypes, and the final video. Â The content should be neatly and concisely laid out on each of these posts, such that the final page containing those posts is polished. Â All game projects are expected to be targeted to Unityâ€™s web plugin (with the unity3d file stored in t-squareâ€™s resources), so all of the game milestones will be playable on your postâ€™s pages, and available to the your classmates and anyone on the internet who stumbles on your page.

Project (From Syllabus)

The final project will be done in groups of 3. Â Not 4, not 2. Â But 3. Â Teams will be formed after fall break, and an initial game pitch will be done by each team.Â Each team will then work on their game over the last month of the semester. Â There will be two major milestones (the Alpha build, and a final complete build, both of which will be play-tested in class.)

The game project is best thought of as â€œ30 to 60 seconds of pure fun that demonstrates the core fun of your game idea.â€ Â The emphasis is on demonstrating the fun. Â The game should play well for that brief period, and it should be clear to the player where this game would go if it were to become real. Â Polished art is not necessary, but the prototype should be complete and clean enough to not interfere with the experience; opting for a clean geometric world rather than â€œcobbled together mismatched modelsâ€ is a good idea. Â While you should have minimal splash screens, menus, instructions and environmental polish, you will NOT get additional credit for things unrelated to the fun of your core idea: no complex levels or level editors, no generalized internal structures, no super-cool animated 3D characters, etc. Â But the critical elements of game feel (as described in the text and in class) are important, insofar as they contribute to a smooth and compelling game experience.

The core requirement for the game, like Project 3, is that it must satisfy Swinkâ€™s definition of a â€œtrue game feelâ€ game (i.e., it must have a character/avatar you control, who moves through a simulated space, and whose interactions with that space are reinforced through polish effects). Â There are no additional technical requirements for the game, aside from doing what you need to make it fun. Â If your game requires â€œenemies or multiple playersâ€ you must implement one (AI controlled enemies, or networking). Â If your game requires physics, then use physics. Â You should focus directly on making a fun-to-play interactive experience. Â Avoid extra complexity that does not contribute to the goal, and put in work on things that contribute to it.

The Pitch

On October 23rd, in class, each team will do a short project pitch. You will have exactly 3 minutes to present, and we will have 2 minutes for questions and comments (mostly from the instructor, but also from the class). Â You should all be prepared to present from your own laptop: Â make sure you know how to present via an external monitor on your machine, as any â€œtechnical fiddlingâ€ will be taken away from your time (you will have ~1 min to set up after the previous group is done).

Pay attention to the short time (3 mins), as you will be graded on how well you use it. Â Rambling, repetition, obvious lack of preparation, and so on will be penalized. Â As will reading a script; donâ€™t do it. Â Practice and a be prepared. Â Similarly, you should maximize the effectiveness of what you put on your slides, and how it coordinates with what you say. Having text-heavy slides that mirror what you say is not effective. Â Showing key words/phrases, and using pictures (including hand-drawn sketches) and so forth is much more effective. Â Maximize the information you convey.

The focus should be on the â€œcore ideaâ€ of the game. Â You should present whatever details you think will convey:

- Who you are, what each of you will do in the game.
- What the game idea is, what the â€œfunâ€ and â€œaha momentsâ€ are.

- What your target experience is.

In addition to submitting your presentation on t-square, you should do an initial blog post on this site containing the same information: Â who you are (anonymized if you wish), what your game title and idea is, who will be doing what, and why this will fun. Â (The t-square submission is due before class on Oct 23rd; you can finish or edit your blog post after class, incorporating the feedback you get and your responses to it, but you MUST finish all editing/posting by the end of the day on the 23rd.)

The Project Design

By the end of the week of Oct 23rd, you will submit a more detailed design document for your game, expanding on the pitch, and taking into account the feedback you got both during the presentation and after (including, possibly, on the blog post). Â *You do NOT have to post* this more complete design to the blog, although you are welcome to do a second â€œpitchâ€ post containing some or all of this more detailed information if you would like.

Your document should include

- a more detailed plan for the game
- three feature set targets: the minimum low-bar of you will do, a target that you expect to get done, and a desired high-bar if things go exceptionally well. Â Plan these out carefully, so that you can definitely high the first, and likely hit the second
- a timeline of what you intend to accomplish by the end of each week through the end of the semester. Â Look at the personal schedules of your team, you classes and other projects, and plan accordingly. Â If you will have a light week because of other classes, but spend more time on another week, say so!
- a target feature set for the alpha build, along with a discussion of why you are targeting this particular subset of your game, and what you hope to learn by having people play-test it. Â The alpha build is not just â€œhalfway to the end,â€ as this wouldnâ€™t be playable and would be unlikely to give you feedback that you can take action on. Â There should be things that are finished by then, and things that are likely unstarted (or for which you have crude stand-in elements). Think this through!

Think this through. Â You will be graded both on this document, and on how well you meet your plans. Â If your plans are poor (i.e., too trivial, or unachievable; Â not well thought through week-by-week), your grade will reflect it. Â If you have a reasonable plan, and do not meet it, your grade will reflect it. Â NOTE: Â the point of the week by week plan is as a feedback mechanism for you. Â If you see your plans slipping, you should (a) try to fix it and/or (b) come talk to use for help or advice. Â If you completely miss your plan, but itâ€™s clear youâ€™ve been working and adjusting appropriately (as measured by how much you interact with us and talk to us about it), you will not be graded poorly. Â But, if you show up at the alpha and/or the final and are far from where you need to be, and have not talked to us about it, your grade will suffer, REGARDLESS of how good a story you tell.

Or, put another way: Â I have implemented many large software systems. Â It is never the case that things are going smoothly until the last minute, and then fall apart. Â It is often the case that leaving things to the last minute, and having an overly optimistic expectation of what can be accomplished in a short amount of time, leads to things falling apart. Â I will not deduct points from people who do everything at the last minute, and succeed. Â But I will NOT have sympathy for people who wait until the night before, and fail. Â You are all adults, you can budget your time as you like. Â But you also get to take responsibility for the results of your choices.

Game Logs

Each week (by Monday morning) you should do a blog post that summarizes what you planned to do by the end of the previous week (from your design document), what you accomplished, what problems you ran into, and how this affects your plan moving forward. Â These posts should be succinct, and might be quite short if everything is proceeding as planned. Â But, this is where you can document how things are changing based on what you are learning as you go along.

Alpha

The Alpha should be an initial playable demo, designed to give you feedback on the core fun of your game. Â By this point, a player should be able to experience the core feel of your game. Consider Bradâ€™s squid game: Â he focused initially on the interaction of the player with the squid and the squid with the world, and added the scoring, enemies and effects later. Â And so it should be with you. Â DoÂ **not** create an alpha that is the â€œstructural shellâ€ of your game, with all the various bits

implemented but nothing implemented well, and nothing to "play" and give feedback on.

You will bring these to class, and we will use two class periods to allow students to play each others games and give their feedback. Â We will post a signup page on the wiki once we have the groups set. Â Each group will choose Tuesday or Thursday for their demo, and bring at least 2 laptops, preferably one per team member, to allow others to play their game. Â The students not demoing will go around and play at least 5 of the other games, and give the team feedback. Â The instructor and TAs will try to play every game.

Final Playtesting Build

The week before final presentations, you will be expected to have your game 99% complete, and we will play-test in class, just as with the alpha. Â We will use the same order as the alpha (if you do the alpha on Tuesday, you will do the final playtest on Tuesday).

After the playtesting, you may update the game based on what you learned (e.g., adjust balance, update some content or technical bugs, etc.) but this should only be updates that could plausibly be called refinement. Â Adding new features after the playtesting build, rather than adjusting features that were there, will NOT count toward your final grade.

You will have until the end of the weekend Â after the final play-testingÂ (11:55pm Sunday night) to post your final game on the class blog (with the unity3d file in t-square). Â You will then do your final presentation during dead week.

Final Presentation

During dead week, you will present your game, primarily by showing a short video (less than two minutes) documenting your game. You should also present what worked and did not work, what you learned, changed and adjusted as you went along. Â If appropriate, you should highlight anything non-trivial you changed since the final playtest, in response to what you learned during that testing.

You will turn in your video, your presentation, and a short document that expands on your presentation by reflecting back on your design document, talking about what you managed to do, didn't do, and what you would change if you could do it all over again. Â You are encouraged to look back and your weekly logs and use what was posted there to create this reflection.