Milestone 3

Singularity Software

April 13, 2012

Test-Driven Development

Framework

We used the Silverlight Unit Test Framework made available by Microsoft at http://silverlight.codeplex.com/releases/view/78435. We chose it because it is designed by the same people who work on the Silverlight runtime and was therefore easy to integrate into our solution. This easy integration kept the amount of time required for TDD setup low and allowed more time to add tested functionality to the emulator.

Effects on Development

We found that test-driven development (TDD) didn't slow down our development process significantly. Because we're still unfamiliar with many of the intricacies of the Sifteo API, there was and continues to be a lot of time spent simply understanding what each API class does before we start to implement it. In this regard, TDD was helpful because it forced us to understand each class part-by-part as we implemented the tests for it. This in turn tended to ensure that we understood each class in small increments instead of struggling to comprehend the entire class all at once.

TDD didn't really have an opportunity to improve our design decisions because most of the development we're doing at this point directly mirrors the Sifteo API structure. Mainly, the process helped us ensure more complete coverage of the API.

Sprint 2 Backlog

The following pages show the backlog for the previous sprint. Any remaining unfinished tasks from this sprint will be finished up over the coming weekend, and the next sprint's progress will begin following the completion of these unfinished tasks.

Backlog	(None)	In Progress	Completed	Summary
S-01011 ~~Emulation: Implement public Cube methods (see Sifteo API)~~ Accepted Ethan 1.00			~~Write tests for methods in Cube class~~ Ethan 0.00 ~~Implement Cube class methods~~ Ethan 0.00	Test Results: To Do: 0.00
S-01012 Emulation: Implement public Color methods (see Sifteo API) Ethan 4.00		Write tests for Color class Ethan 0.00 Implement Color class methods Ethan 2.00		Test Results: To Do: 2.00
S-01013 ~~Emulation: Implement public CubeSet methods (see Sifteo API)~~ Accepted Ethan 4.00			~~Write tests for methods in CubeSet class~~ Ethan 0.00 ~~Implement CubeSet class methods~~ Ethan 0.00	Test Results: To Do: 0.00
S-01017 ~~Emulation: Implement Sprite class~~ Accepted Kurtis 13.00			~~Write tests for SpriteData class~~ Kurtis 0.00 ~~Implement SpriteData class~~ Kurtis 0.00 ~~Write tests for displaying sprite images on cubes~~ Kurtis 0.00 ~~Implement rendering sprite images to cubes~~ Kurtis 0.00	Test Results: To Do: 0.00

			~~Write tests for Sprite rotation and scaling~~ Kurtis 0.00 ~~Implement Sprite rotation and scaling~~ Kurtis 0.00 ~~Write tests for Sprite pivoting and paint masking~~ Kurtis 0.00 ~~Implement pivoting and paint masking~~ Kurtis 0.00	
S-01018 Emulation: Implement StateMachine class In Progress Alex 10.00	Implement Locking Alex 2.00	Test Bucket Alex 2.00 Implement Transitions Alex 3.00	~~Implement StateMachine Class~~ Alex 0.00	Test Results: To Do: 7.00
S-01019 ~~Documentation: Milestone 3~~ Accepted Alex, Kurtis, Ethan, Richard 6.00			~~Write Milestone~~ Alex, Kurtis, Ethan, Richard 0.00	Test Results: To Do: 0.00
S-01020 Application: Test Cube Actions In Progress Richard 8.00		Test Application Richard 2.00	~~Brainstorm Application Ideas~~ Richard 0.00 ~~Create Application Solution and Outline~~ Richard 0.00 ~~Develop Application~~ Richard 0.00	Test Results: To Do: 2.00

Sprint 3 Backlog

Backlog	(None)	In Progress
S-01005 UI: Cube drag-and-drop with displacement Alex 8.00		Modify drag-and-drop behavior Alex 7.00
S-01014 Emulation: Implement Sound class Kurtis 8.00	Write Sound tests Kurtis 2.00 Write code for Sound class Kurtis 6.00	
S-01015 Emulation: Implement MathExt structs Richard 4.00	Write tests for MathExt class 1.00 Implement MathExt struct 3.00	
S-01016 Emulation: Implement Mathf class Ethan 4.00	Write tests for Mathf class Ethan 1.00 Write code for Mathf class Ethan 3.00	
S-01021 Documentation: Milestone 4 Alex, Kurtis, Ethan, Richard 6.00	Write Milestone Alex, Kurtis, Ethan, Richard 6.00	
S-01022 Prepare Project for Shipping Alex 2.00	Create Deployment Plan Alex 2.00	