

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

Design, Fly, and Battle Flight Simulator

The Capstone Experience

Team Boeing

Brandon Overall

David Cornelius

Jonathan Moore

Department of Computer Science and Engineering
Michigan State University

Spring 2012

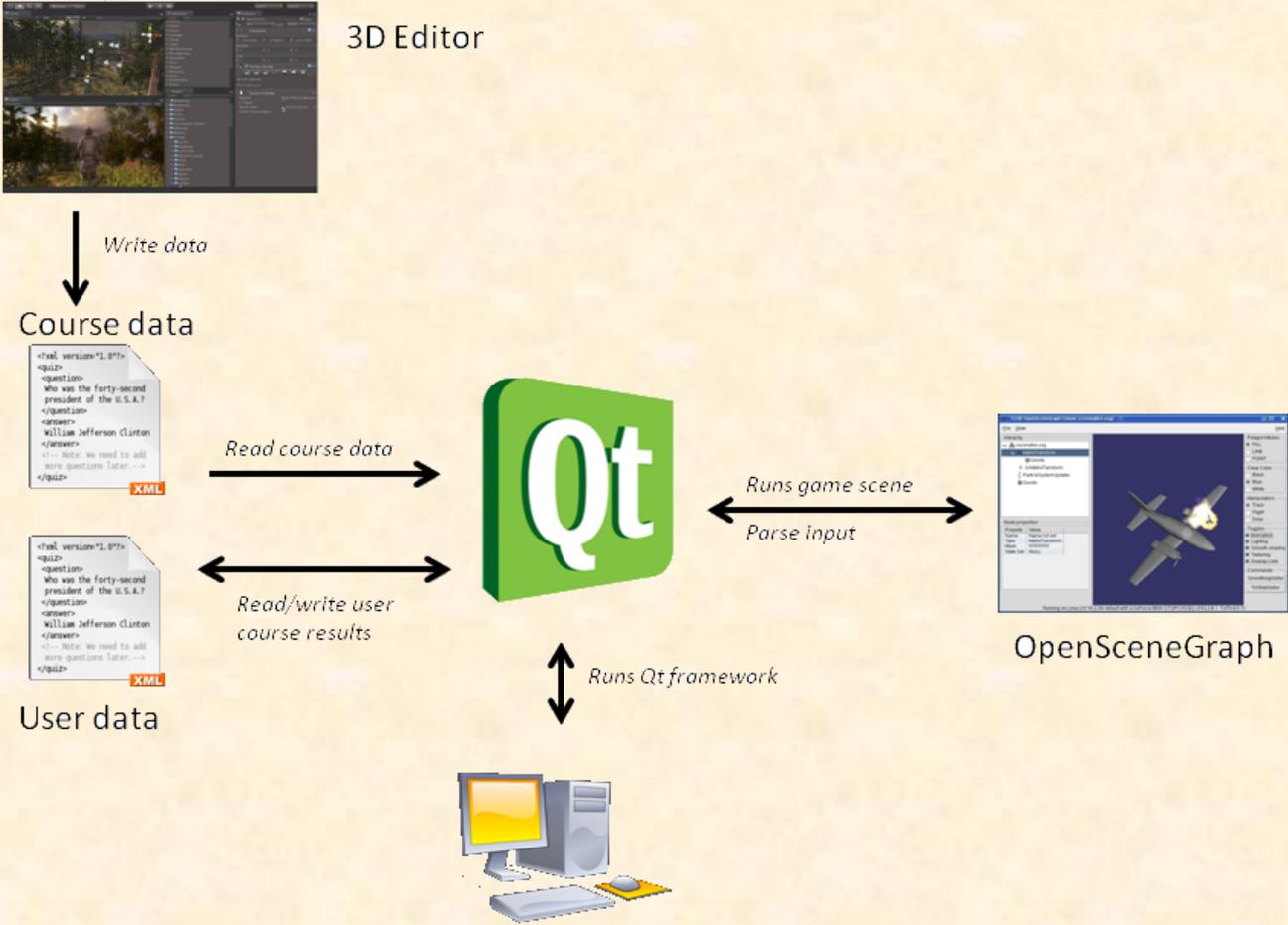


*From Students...
...to Professionals*

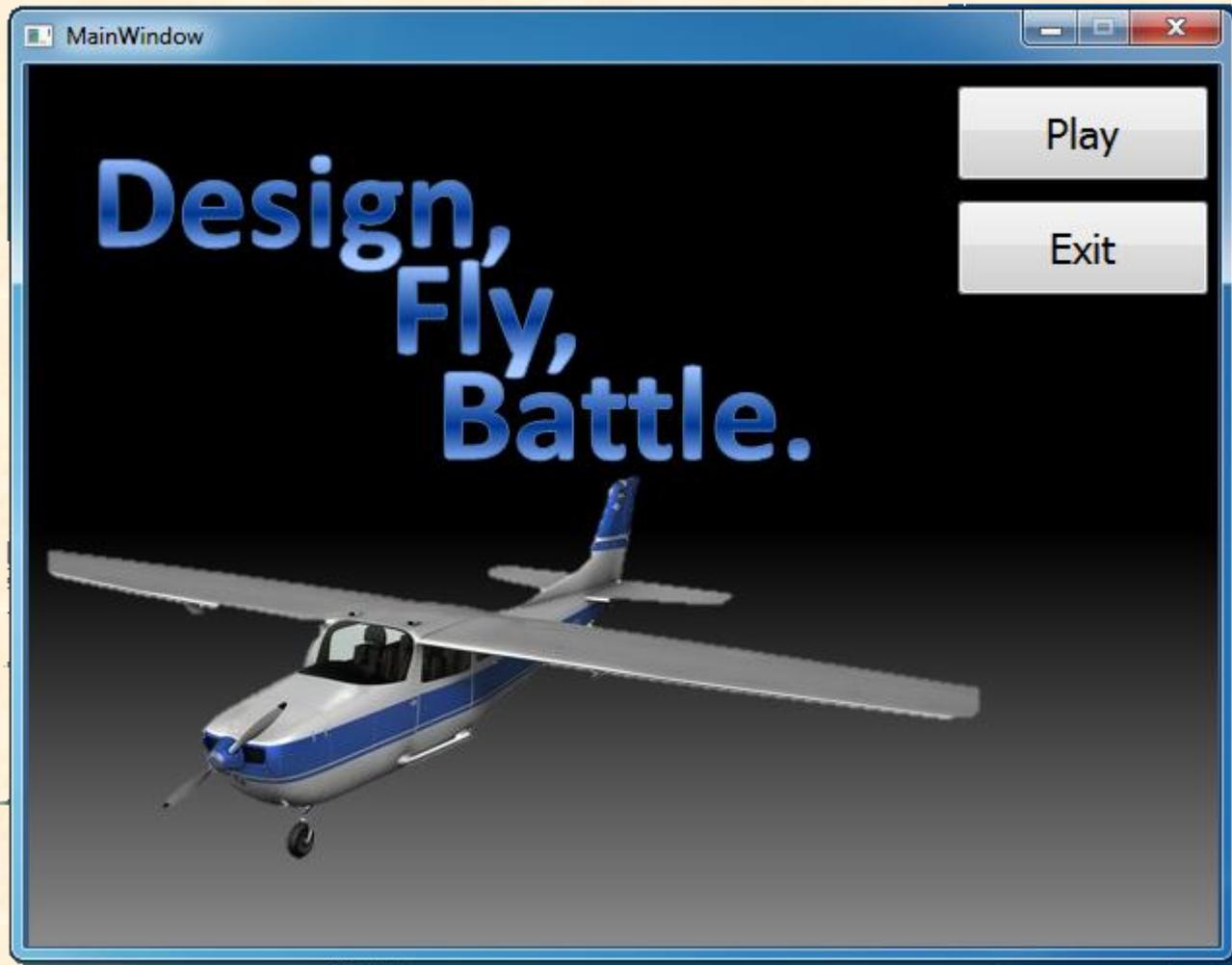
Project Overview

- Robust “6 Degrees Of Freedom” flight model
- Full single player experience
 - Multiple aircraft
 - Diverse obstacle courses
- High graphical fidelity
- Persistent stat tracking
 - Obstacle course results
 - Multiple users

System Architecture



Start Menu



Single Player Menu

Design, Fly, Battle.

Single Player

Options

Play

Quit

OBSTACLE COURSE

Choose a Level



Course 1

Course 2

Course 3

Course 4

Choose an Aircraft



Acceleration:
Length:
Weight:

Top Speed:
Maneuverability:
Wingspan:

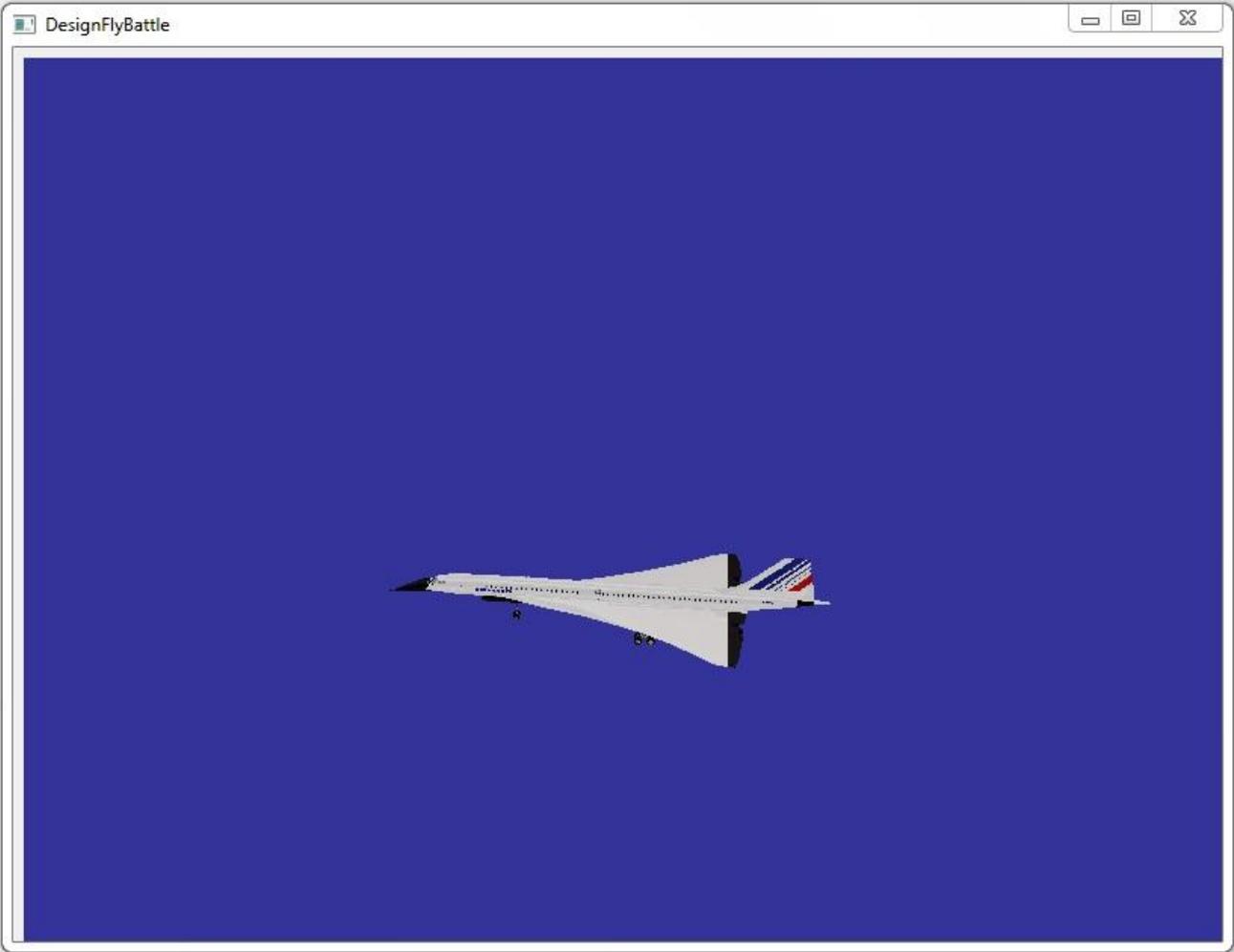
Aircraft 1

Aircraft 2

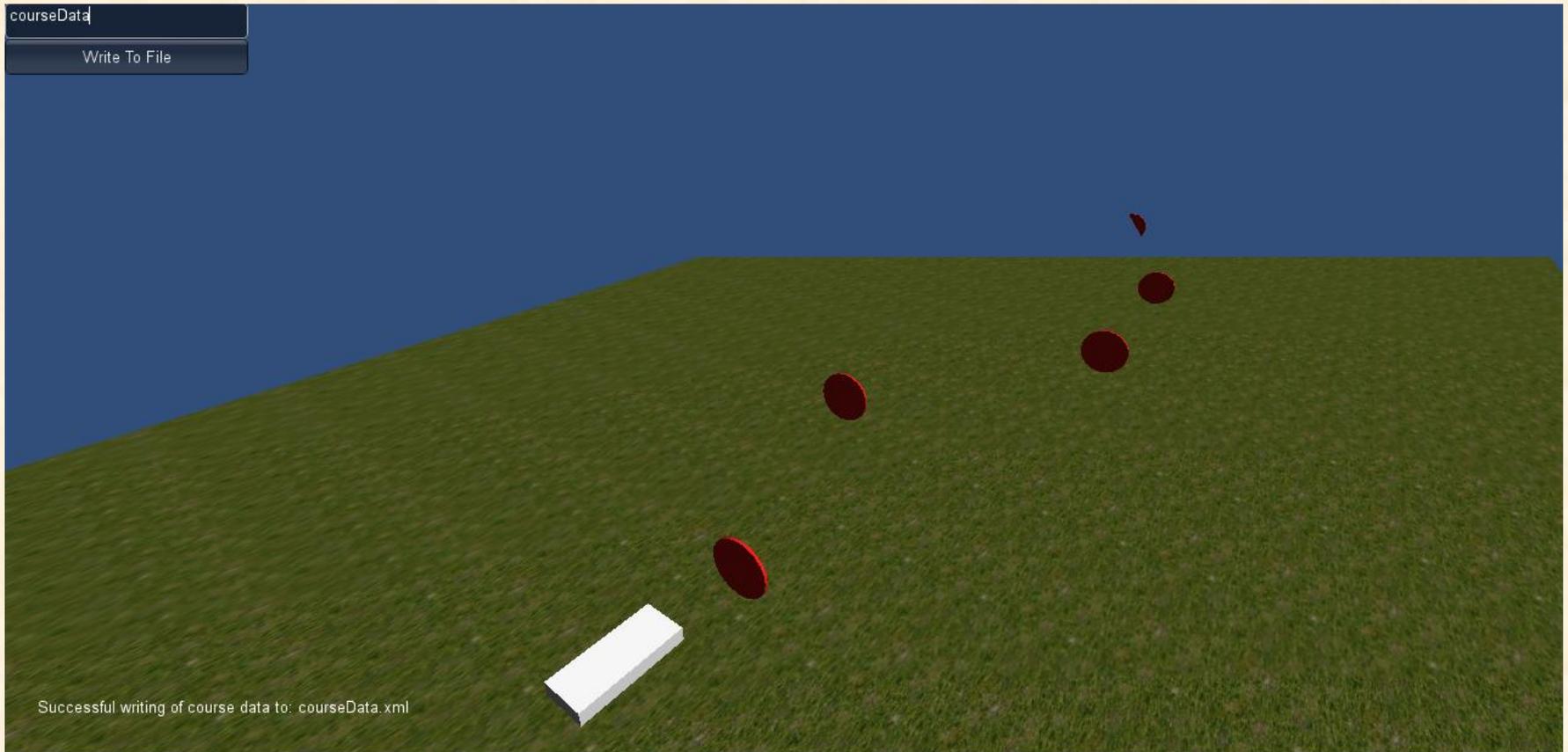
Aircraft 3

Aircraft 4

Concorde Model in OSG



Course Editor (Unity3D)



What's left to do?

- Obstacle course design(s)
- Menu integration with OSG
- Terrain rendering
- Flight model
 - Continual refinements
- Data logging
- Multi-language support