Spring 2014

Game Programming

305890
Spring 2013
3/4/2014
Kyoung Shin Park
Multimedia Engineering
Dankook University

Course Information

- Course
  - Game Programming (305890)
  - Spring 2014, 3 credits, 3 hours
  - Course hour: Tuesday 9:30-12:30
- Instructor
  - Kyoung Shin Park
  - kpark@dankook.ac.kr
  - 010-8636-1960 (mobile)
  - The Third Science Hall, Room 417
  - Office hour: Monday 1:00-2:00
- Prerequisite courses
  - HCI Programming I (Data Structure, C/C++ Programming), Graphics Programming

Purpose

- This course introduces the fundamental concepts of 3D computer game programming.
- Students will learn and practice XNA programming basics, game graphics programming techniques, the tools needed for game production.
- In this course, students will form project groups to create a simple computer game using XNA to develop game design skills.

Text Book

- Microsoft XNA Game Studio 4.0
  - http://msdn.microsoft.com/en-us/library/bb200104(v=XNAGameStudio.40).aspx
- Reference Book
  - Core Techniques and Algorithms in Game Programming, Daniel Sanchez-Crespo Dalmau

Evaluation

- Attendance : 20%
- Midterm Exam : 30 %
  - There will be a midterm exam that covers all the subjects discussed in the classroom.
- Individual Assignment : 20 %
- Term Project : 30%
  - Proposal 5%
  - Midterm progress report & presentation 10%
  - Implementation 5%
  - Final report & presentation 10%
- Class Participation & Attitude: extra 10 %

Schedule

- 3/04: Course Overview
  XNA Initialization
- 3/11: Rendering Pipeline
  Drawing
- 3/18: Vector & Matrix
  Transformation
- 3/25: Euler, Axis-Angle, Quaternions
  Term Project Proposal Presentation
- 4/01: Input & Introduction to Kinect
  Model
- 4/08 : Effect
  Color & Lighting

Schedule

- 4/15: Texturing & Blending
  Stencil
- 4/22: Midterm
- 4/29: Term Project Midterm Presentation
- 5/06: 석가탄신일 (no class)
- 5/13: Sound
- 5/20 : Mesh & Mesh Hierarchy Animation
- 5/27: Camera
  Terrain Rendering
- 6/03: Game Physics
- 6/10 : Particle System
  Picking
- 6/17 : Term Project Final Presentation

Exams

- Midterm Exam
  - Chapter ~Blending
  - 2-hour **open-book** exam

Programming Exercises

- Programming Exercises
  - 5~10 Assignments
  - Turn in all your source codes, executable, short report containing the snapshot

Term Project

- XNA Game Development
- Students will work on a semester-long project that will comprise a major part of the class grade.
- Students are encouraged to work on a project related to your own area of interest.
- Projects can be done as groups of two or three.
- Also, the project report should indicate to which portions of the project each member contributed.
- You group project blog will also help monitor your steady progress across the semester.
- Also, the final project report should indicate to which portions of the project each member contributed.

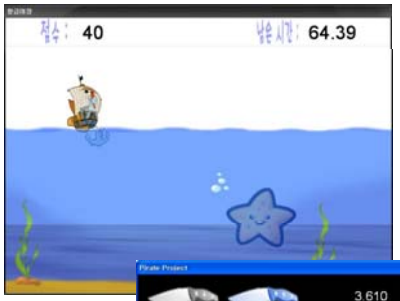
Term Project

- Project proposal & 5-min presentation (3/25) 5%
  - Project groups will form (2 or 3 students in each group)
  - Once a group is form, send me email
  - 2~3-page (single-space, 10-point font) report
- Project progress report & presentation (4/29) 10%
  - Implementation progress
  - 10 minutes presentation
  - 3~5-page (single-space, 10-point font) report
- Project implementation & Blogging 5%
- Project final report (6/17) 10%
  - 10-20 minutes in-class presentation & demo
  - 10-page (single-space, 10-point font) report
  - Turn in all your source codes & executable

Term Project

- Data Set
  - A collection of 3D models (models.zip 135MB)
  - A collection of textures (textures.zip 17MB)
  - A collection of sound effects (sounds.zip 57MB)

Spring 2007 Students' Term Project



황금어장

체스 (2인용 네트워크 버전)

DirectX9 + Joystick

해적

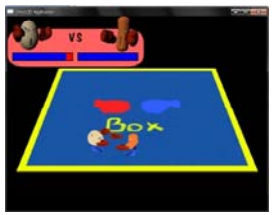
Spring 2007 Students' Term Project

DirectX9 + Joystick

리듬플러스

토이박스

Spring 2008 Students' Term Project

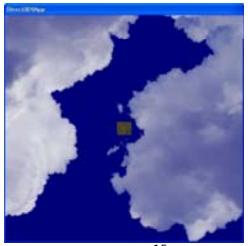


Food Fighter

미로게임

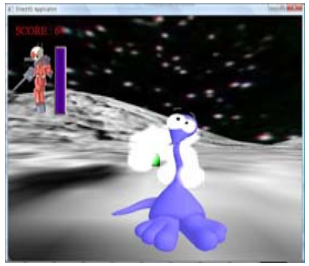
DirectX9 + Joystick

두더지게임



Save the Spy

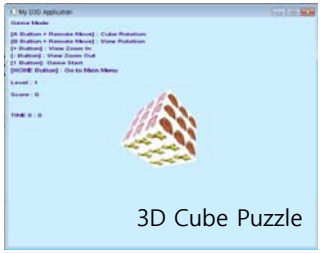
Spring 2009 Students' Term Project



Top Gun

Gone

DirectX9 + Wiimote



Spring 2010 Students' Term Project

Snow Battle

Gladiator

DirectX9 + Shader

Spring 2011 Students' Term Project

Food Eating

XNA + Kinect

Spring 2012 Students' Term Project

Runaway North

XNA + Kinect

Penguin Olympic

Spring 2013 Students' Term Project

Diet War

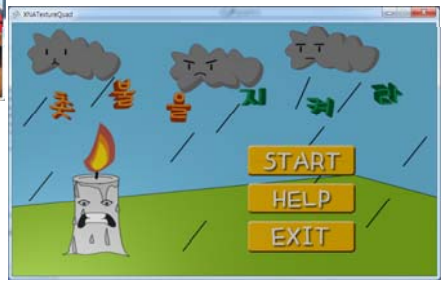
수금지화목토천해명

XNA + Kinect

Spring 2013 Students' Term Project

독도를 지켜라

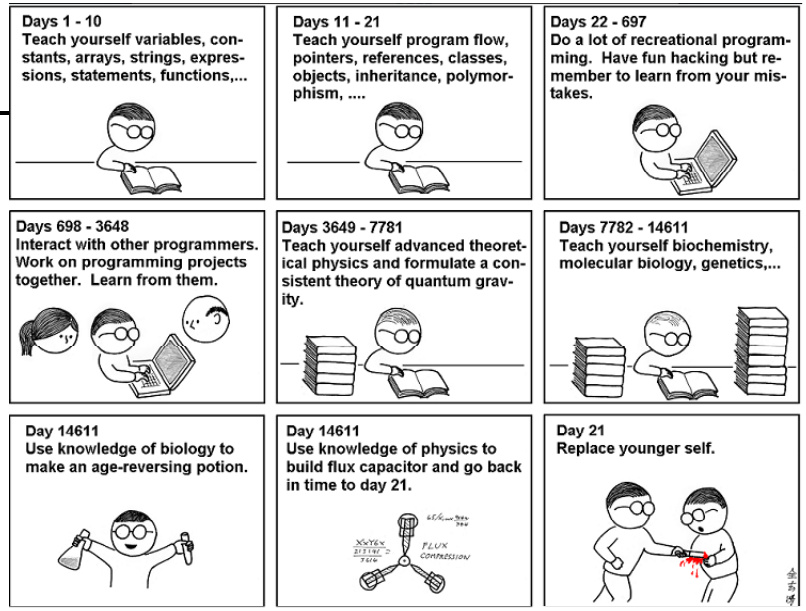
XNA + Kinect



촛불을 지켜라

Announcement

- Class blog:
  - http://dis.dankook.ac.kr/lectures/game14/



http://adt.soup.io/post/47737983/Teach-yourself-C-in-21-days