

# **2008-2009 PSAN2 FYP**

## **1<sup>st</sup> Meeting Minutes**

22<sup>nd</sup> June, 2008

### **I. Call to order**

Kiron called to order the regular meeting of the FYP at 4PM on 22/06/2008 in Wan Chai

### **II. Roll call**

Kiron conducted a roll call. The following persons were present: Vincent, Kiron, Jerry and Oz

### **III. New business**

- 1 Game Design
  - 1.1 Game Genre: ARPG (Final Fantasy Crystal Chronicles like)
  - 1.2 Four characters with different skills
    - 1.2.1 Swordsman
    - 1.2.2 Robot
    - 1.2.3 Magician
    - 1.2.4 Ninja
  - 1.3 Four kind of action
    - 1.3.1 Attack
    - 1.3.2 Skills
    - 1.3.3 Guard
    - 1.3.4 Jump
  - 1.4 Four scenes
    - 1.4.1 Village
    - 1.4.2 Forest
    - 1.4.3 Town
    - 1.4.4 Snow hill
  - 1.5 Story: The main character's father invented a twin's robot but one of them became evil and wants to damage the world. The main character aims to stop the evil robot from damaging the world.
- 2 Find resources
  - 2.1 Engine
  - 2.2 Structure of game engine
  - 2.3 Libraries
  - 2.4 Interaction between models and game engine
  - 2.5 Developing environment
  - 2.6 Version control
  - 2.7 3D modeling tools
- 3 Further discussion
  - 3.1 Work division
  - 3.2 Game music

- 3.3 Toon shading
- 3.4 Character style

#### **IV. Adjournment**

**Vincent** adjourned the meeting at 6PM.

Minutes submitted by: Vincent

Minutes approved by: Jerry

# **2008-2009 PSAN2 FYP**

## **2<sup>nd</sup> Meeting Minutes**

18<sup>th</sup> August, 2008

### **I. Call to order**

**Vincent** called to order the regular meeting of the FYP at **4PM** on 18/8/2008 in Mongkok.

### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Vincent, Kiron, Jerry and Oz

### **III. Approval of minutes from last meeting**

Jerry read the minutes from the last meeting. The minutes were approved as read.

### **IV. Open issues**

- 1 Further game design
  - 1.1 Special effect:
    - 1.1.1 Toon shading
    - 1.1.2 Particle system
    - 1.1.3 Reduced loading time
    - 1.1.4 Cross platform
    - 1.1.5 Interaction with the scene
  - 1.2 Character design
    - 1.2.1 3D modeling
    - 1.2.2 Action design
    - 1.2.3 Skills design
    - 1.2.4 Weapon design
    - 1.2.5 Equipment design
    - 1.2.6 Item design
  - 1.3 Enemy design
    - 1.3.1 Boss
    - 1.3.2 Minimum another four enemy
    - 1.3.3 Item dropped by enemy
  - 1.4 UI design
    - 1.4.1 Skill in use surrounded by HP and MP at the top left corner
    - 1.4.2 Bur the background when using the Item/Skills/Ability Menu
- 2 Work division
  - 2.1 Documentation
  - 2.2 3D modeling
  - 2.3 Story script
  - 2.4 Engine
  - 2.5 AI

- 2.6 Battle
- 2.7 Game balancing
- 2.8 File system
- 2.9 Animation

**V. New business**

- 1 Proposal
  - 1.1 Think of the format and what to be included in the proposal
  - 1.2 To be discussed on 5/9/2008 and further amended on 8/9/2008

**VI. Adjournment**

**Kiron** adjourned the meeting at 5:30PM.

Minutes submitted by: Vincent

Minutes approved by: Kiron

## **2008-2009 PSAN2 FYP**

### **3<sup>rd</sup> Meeting Minutes**

5<sup>th</sup> September, 2008

#### **I. Call to order**

**Vincent** called to order the regular meeting of the FYP at 4PM on 05/09/2008 in FYP lab.

#### **II. Roll call**

Kiron conducted a roll call. The following persons were present: Kiron, Vincent, Jerry and Oz

#### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

#### **IV. Open issues**

##### **1 Work division**

Job	PIC	
Documentation	Oz	Jerry
3D modeling	Kiron	Vincent
Story script	Oz	Vincent
Engine & file handling	Oz	Jerry
AI + Battle + Game Balancing + Level up + attack	Jerry	Vincent
UI + Camera + cut scene + background	Kiron	Oz
Animation	Kiron	Vincent
GPU	ALL	
music	Kiron	Jerry

##### **2 Proposal**

2.1 To be finalized before 20<sup>th</sup> September, 2008

#### **V. Adjournment**

**Oz** adjourned the meeting at 5PM.

Minutes submitted by: Vincent

Minutes approved by: Oz

## **2008-2009 PSAN2 FYP**

### **4<sup>th</sup> Meeting Minutes**

25<sup>th</sup> September, 2008

#### **I. Call to order**

**Oz** called to order the regular meeting of the FYP at 4PM on 25/09/2008 in FYP lab.

#### **II. Roll call**

Jerry conducted a roll call. The following persons were present: Jerry, Kiron, Vincent and Oz

#### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 3D modeling
  - 1.1 Use Blender to model
  - 1.2 Design main character and the twin's robots
- 2 GPU shading
  - 2.1 Study GPU shading
- 3 Engine
  - 3.1 Study Irrlicht Engine

#### **V. Adjournment**

**Oz** adjourned the meeting at 5PM.

Minutes submitted by: Vincent

Minutes approved by: Oz

## **2008-2009 PSAN2 FYP**

### **5<sup>th</sup> Meeting Minutes**

16<sup>th</sup> October, 2008

#### **I. Call to order**

**Vincent** called to order the regular meeting of the FYP at 4PM on 16/10/2008 in FYP lab.

#### **II. Roll call**

Jerry conducted a roll call. The following persons were present: Jerry, Kiron, Vincent and Oz

#### **III. Approval of minutes from last meeting**

Oz read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 3D modeling
  - 1.1 Find another exporter for Blender to export .x file
- 2 GPU shading
  - 2.1 Testing and studying GPU shader with RenderMonkey
- 3 Engine
  - 3.1 Implement the Irrlicht Engine

#### **V. Adjournment**

Jerry adjourned the meeting at 5PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent

## **2008-2009 PSAN2 FYP**

### **6<sup>th</sup> Meeting Minutes**

11<sup>th</sup> November, 2008

#### **I. Call to order**

**Jerry** called to order the regular meeting of the FYP at 4PM on 11/11/2008 in FYP lab.

#### **II. Roll call**

Jerry conducted a roll call. The following persons were present: Jerry, Kiron, Vincent and Oz

#### **III. Approval of minutes from last meeting**

Kiron read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 3D modeling
  - 1.1 Fail in solving the problem of Blender's export
  - 1.2 Use Maya for 3D model
  - 1.3 Use MotionBuilder to animate the models
- 2 GPU shading
  - 2.1 Testing and studying GPU shader with RenderMonkey
- 3 Engine
  - 3.1 Implement the Irrlicht Engine

#### **V. Adjournment**

Jerry adjourned the meeting at 5PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent



# **2008-2009 PSAN2 FYP**

## **7<sup>th</sup> Meeting Minutes**

19<sup>th</sup> December, 2008

### **I. Call to order**

**Oz** called to order the regular meeting of the FYP at 4PM on 19/12/2008 in FYP lab.

### **II. Roll call**

Jerry conducted a roll call. The following persons were present: Jerry, Kiron, Vincent and Oz

### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

### **IV. New business**

- 1 Confirm Pedro's schedule
- 2 To do:
  - 2.1 Implement core system
    - 2.1.1 Read files
    - 2.1.2 Dynamically build scenes
    - 2.1.3 State machine
  - 2.2 AI implementation
  - 2.3 Game implementation
  - 2.4 3D modeling
    - 2.4.1 Animated character
    - 2.4.2 Static objects
- 3 Maintain SVN
- 4 Verify minutes
- 5 Maintain demo page for Pedro

### **V. Adjournment**

**Oz** adjourned the meeting at 5PM.

Minutes submitted by: Vincent

Minutes approved by: Oz

## **2008-2009 PSAN2 FYP**

### **8<sup>th</sup> Meeting Minutes**

12<sup>th</sup> January, 2009

#### **I. Call to order**

**Kiron** called to order the regular meeting of the FYP at 4PM on 12/01/2009 in FYP lab.

#### **II. Roll call**

Kiron conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

#### **III. Approval of minutes from last meeting**

Oz read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 To do:
  - 1.1 FSM
  - 1.2 GPU shading for any special effect
  - 1.3 3D modeling
    - 1.3.1 Animations
    - 1.3.2 Monster
    - 1.3.3 Main character
  - 1.4 Scenes drawing
  - 1.5 GUI
  - 1.6 Search for multiple texture and materials

#### **V. Adjournment**

Jerry adjourned the meeting at 5PM.

Minutes submitted by: Kiron

Minutes approved by: Oz

# **2008-2009 PSAN2 FYP**

## **9<sup>th</sup> Meeting Minutes**

2<sup>nd</sup> February, 2009

### **I. Call to order**

Oz called to order the regular meeting of the FYP at 6PM on 1/2/2009 in UST library.

### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

### **III. Approval of minutes from last meeting**

Jerry read the minutes from the last meeting. The minutes were approved as read.

### **IV. New business**

- 1 To do:
  - 1.1 Progress report
    - 1.1.1 Find a game for literature review or survey
    - 1.1.2 Modify the content in methodology
      - 1.1.2.1 3D modeling
      - 1.1.2.2 Game engine
      - 1.1.2.3 Game system
      - 1.1.2.4 Structure setup
      - 1.1.2.5 GPU programming
      - 1.1.2.6 AI
    - 1.1.3 Update reference
    - 1.1.4 Update Gantt chart
  - 1.2 Demo in next meeting with Pedro
    - 1.2.1 Try Toon shading
    - 1.2.2 Try Newton
    - 1.2.3 Improve character texture
    - 1.2.4 Improve scene texture
  - 1.3 Within coming 2 weeks
    - 1.3.1 Work on FSM
    - 1.3.2 Implement Game system
    - 1.3.3 Finalizing the characters
    - 1.3.4 Setup basic model for other 3 scenes

### **V. Adjournment**

Jerry adjourned the meeting at 7PM.

Minutes submitted by: Kiron

Minutes approved by: Oz

## **2008-2009 PSAN2 FYP**

### **10<sup>th</sup> Meeting Minutes**

16<sup>th</sup> February, 2009

#### **I. Call to order**

Oz called to order the regular meeting of the FYP at 12:30PM on 16/02/2009 in UST LG1 canteen.

#### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

#### **III. Approval of minutes from last meeting**

Jerry read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 To do:
  - 1.1 Update Blog for Pedro – due on Tuesday(17/02/2009)
  - 1.2 Study Multi-pass problem – due late February
  - 1.3 Implement game play – due on Sunday (21/02/2009)
    - 1.3.1 Collision detection
      - 1.3.1.1 Try with less triangle (Vincent)
      - 1.3.1.2 Try triangulation in Maya (Vincent)
    - 1.3.2 FSM (JJ)
    - 1.3.3 Battle (Oz)
      - 1.3.3.1 Attack
      - 1.3.3.2 Change of HP
      - 1.3.3.3 Control
    - 1.3.4 Study game example (Oz, Kiron)
  - 1.4 GPU – due late February
    - 1.4.1 Environment
      - 1.4.1.1 Snow
      - 1.4.1.2 Smoke
      - 1.4.1.3 Fireball
      - 1.4.1.4 Find relevant example
  - 1.5 Model – due late February
    - 1.5.1 Fine tuning

#### **V. Adjournment**

Jerry adjourned the meeting at 1:30PM.

Minutes submitted by: Vincent

Minutes approved by: Kiron

## **2008-2009 PSAN2 FYP**

### **11<sup>th</sup> Meeting Minutes**

23<sup>rd</sup> February, 2009

#### **I. Call to order**

Oz called to order the regular meeting of the FYP at 1:00PM on 23/02/2009 in UST LG1 canteen.

#### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

#### **III. Approval of minutes from last meeting**

Jerry read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 To do (due on 28/02/2009)
  - 1.1 Modify font
  - 1.2 Create new HP bar
  - 1.3 Convert the main character to the actor in sample game
  - 1.4 Collision detection
  - 1.5 Head up display
  - 1.6 Enhance texture
  - 1.7 Build other scenes
  - 1.8 Improve the AI of monster and implement the monster into the new code

#### **V. Adjournment**

Jerry adjourned the meeting at 1:55PM.

Minutes submitted by: Vincent

Minutes approved by: Kiron

## **2008-2009 PSAN2 FYP**

### **12<sup>th</sup> Meeting Minutes**

27<sup>th</sup> February, 2009

#### **I. Call to order**

Kiron called to order the regular meeting of the FYP at 3:00PM on 23/02/2009 in UST cafe.

#### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

#### **III. Approval of minutes from last meeting**

Jerry read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 Decision
  - 1.1 Game Name: R.X.W.
  - 1.2 HUD design confirmed
  - 1.3 Robot don't have AI except following the player and flying
  - 1.4 Robot will be responsible for magic attacks only
  - 1.5 Name of the main character can be input by the player
  - 1.6 Charge to increase the power of the magic attacks

#### **V. Adjournment**

Jerry adjourned the meeting at 4:30PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent



## **2008-2009 PSAN2 FYP**

### **13<sup>th</sup> Meeting Minutes**

3<sup>rd</sup> March, 2009

#### **I. Call to order**

Kiron called to order the regular meeting of the FYP at 1:00PM on 23/02/2009 in UST cafe.

#### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

#### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

#### **IV. New business**

- 1 To-do
  - 1.1 Filter the items in SVN (Kiron)
  - 1.2 Update blog (Kiron)
  - 1.3 Make the main character's hands be vertical for testing (Kiron)
  - 1.4 Add id to the model in irrEdit (Vincent)
  - 1.5 Build the scene of the damaged village (Vincent)
  - 1.6 Control of HP(Jerry & Oz)
  - 1.7 Game control (Oz)
  - 1.8 Add monsters to new code (Jerry)
  - 1.9 Setup the display for pause menu
  - 1.10 Modification of sky box (Oz & Vincent)

#### **V. Adjournment**

Jerry adjourned the meeting at 1:50PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent

# **2008-2009 PSAN2 FYP**

## **14<sup>th</sup> Meeting Minutes**

16<sup>th</sup> March, 2009

### **I. Call to order**

Kiron called to order the regular meeting of the FYP at 1:00PM on 16/03/2009 in UST LG1 canteen.

### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

### **IV. New business**

- 1 To-do
  - 1.1 AI
  - 1.2 Shader
  - 1.3 Improve performance
  - 1.4 Animation
- 2 Target
  - 2.1 Before game start
    - 2.1.1 Startup screen
    - 2.1.2 Ask user to input character's name (optional)
    - 2.1.3 Fade in words for introduction
    - 2.1.4 Camera animation
  - 2.2 Game play
    - 2.2.1 Main character (need shader)
      - 2.2.1.1 Physical attack
      - 2.2.1.2 Defense (Ask the robot to defend)
      - 2.2.1.3 Animation
        - 2.2.1.3.1 Moving forward
        - 2.2.1.3.2 Moving backward
        - 2.2.1.3.3 Running
        - 2.2.1.3.4 Attack
        - 2.2.1.3.5 Defense
        - 2.2.1.3.6 Dead
    - 2.2.2 Robot (need shader)
      - 2.2.2.1 Only flowing with random Y position offset
      - 2.2.2.2 Magical attack
      - 2.2.2.3 Charged attack will cost the same energy as normal

- 2.2.2.4 Provide defense for Main Character (presented by shader)
- 2.2.3 Monsters (need shader)
  - 2.2.3.1 Physical attack
  - 2.2.3.2 Magical attack (optional)
  - 2.2.3.3 HP bar
  - 2.2.3.4 AI
  - 2.2.3.5 Animation
    - 2.2.3.5.1 Attack
      - 2.2.3.5.1.1 Physical attack
      - 2.2.3.5.1.2 Magical attack (optional)
    - 2.2.3.5.2 Dead
- 2.2.4 Item box
  - 2.2.4.1 Medicine
  - 2.2.4.2 Discs
  - 2.2.4.3 Important item for entering next stage
- 2.2.5 General
  - 2.2.5.1 Music
    - 2.2.5.1.1 Background music
    - 2.2.5.1.2 Sound effect
  - 2.2.5.2 Control
    - 2.2.5.2.1 Remain unchanged
  - 2.2.5.3 Attribute
    - 2.2.5.3.1 Battle system (formula)
  - 2.2.5.4 Conversation
    - 2.2.5.4.1 Information achieving
    - 2.2.5.4.2 Items buying
  - 2.2.5.5 Mini Games
    - 2.2.5.5.1 To get Important item
    - 2.2.5.5.2 Mastermind
    - 2.2.5.5.3 Riddle solving
      - 2.2.5.5.3.1 Need to find 3 pieces of specified items to enter the next stage
- 2.3 Game Over
  - 2.3.1 Player dead
  - 2.3.2 Finished the last scene
    - 2.3.2.1 Fade in words for description and “To Be Continued”

## V. **Adjournment**

Jerry adjourned the meeting at 1:50PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent

# **2008-2009 PSAN2 FYP**

## **15<sup>th</sup> Meeting Minutes**

23<sup>rd</sup> March, 2009

### **I. Call to order**

Kiron called to order the regular meeting of the FYP at 1:00PM on 23/03/2009 in UST LG1 canteen.

### **II. Roll call**

Vincent conducted a roll call. The following persons were present: Kiron, Jerry, Oz and Vincent

### **III. Approval of minutes from last meeting**

Vincent read the minutes from the last meeting. The minutes were approved as read.

### **IV. New business**

- 1 Working arrangement
  - 1.1 Start from 1/4/2009
  - 1.2 Venue: FYP Lab
  - 1.3 Time:
    - 1.3.1 Monday, Tuesday, Friday & Sunday
      - 1.3.1.1 10am – 7pm
    - 1.3.2 Thursday
      - 1.3.2.1 Jerry day off until Oz no need to work
    - 1.3.3 Wednesday
      - 1.3.3.1 10am – 9pm
- 2 Tasks for this week
  - 2.1 Improve performance (Vincent)
  - 2.2 Improve AI (Jerry)
    - 2.2.1 Increase detective range
    - 2.2.2 Make it to be able to find the path
  - 2.3 Animation (Kiron)
    - 2.3.1 Attack
    - 2.3.2 Dead
  - 2.4 Finalize model (Kiron)
  - 2.5 Solve shader problem (Oz)
- 3 Further work
  - 3.1 NPC conversation (Oz)
  - 3.2 Load scenes (Vincent & Oz)
  - 3.3 Manipulate HUD (Kiron)
  - 3.4 Player attribute & game system(calculations) (Jerry)

- 5 Final Report
  - 5.1 Contact Ted after 1/4
  - 5.2 Take a look at the Final Report guideline
- 6 Others
  - 6.1 Update Blog if have something to see
  - 6.2 Publish calendar

**V. Adjournment**

Jerry adjourned the meeting at 1:50PM.

Minutes submitted by: Kiron

Minutes approved by: Vincent