DocNo: 001.K.1:1

Project Development Summary

Version 1.1

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**Document Language:**

English

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 2015-11-15 | <1.0> | Finish the 1st edition | 万成城 |
| 2016-01-05 | <1.1> | Final fix | 万成城 |
|  |  |  |  |

**Key Word**

Chinese Chess, Summary

**Digest**

This document is to summary the developing phase.

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# Introduction

## Purpose

The purpose of this document is to look back on the whole process of project develop process, and to evaluate whether the project meet customer’s requirements and whether the develop process meet the software engineering requirements. It also aims to provide success or failure experience.

All the participators of the project are expected to read this document.

## Background

Project Name: Chinese Chess

Software System Name: Chinese Chess

Task provider: Computer Science and Technology Department of Shanghai Jiaotong University

Develop team members: Shi Yu, Lu Hao, Wan Chengcheng, Cao Yifeng

User: People who like Chinese chess game

## Definition

AI: Artificial intelligence

## Reference

*“Object-oriented Software Engineering, Using UML, Patterns, and Java, Third Edition”*

byBernd Bruegge and Allen H. Dutoit

# Actual Artifacts

## Artifacts

Since the project take Unity3D as platform, the workload is reduced.

**Main source files of Basic Logic Part**

\Assets\Scripts:

[Board.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/Board.cs)

[FloorLightController.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/FloorLightController.cs)

[GameManager.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/GameManager.cs)

\Assets\Prefabs:

hoodleBlue.prefab

…

**Main source files of Artificial Intelligence Part**

\Assets\Scripts:

[GameManager.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/GameManager.cs)

\Assets\Prefabs:

Highlight.prefab

…

**Main source files of Network Connection Part**

\Assets\Scripts:

[GameManager.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/GameManager.cs)

…

**Main source files of Game Mode Part**

\Assets\Scripts:

[PickUpRotate.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/PickUpRotate.cs)

\Assets\Prefabs:

PickUp.prefab

obstacle.prefab

…

**Main source files of 3D Effect Part**

\Assets\Scripts:

[CameraControl.cs](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/CameraControl.cs)

[DestroyEffect.js](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/DestroyEffect.js)

[ParticleMove.js](https://github.com/shiyu1994/Chinese-Checkers/blob/master/Assets/Scripts/ParticleMove.js)

\Assets\Prefabs:

FireBall.prefab

…

## Main Function and Performances

1. Functional requirements

1. Man-machine game and artificial intelligence.

2. Man-man game and Internet connection.

3. Optional game modes.

4. 3D effects.

1. Non-functional requirements

It should be robust, user-friendly, portable and extensible.

Almost all the functional and non-functional requirements are met.

## Basic Work Flow

## Schedule

Schedule plan:

|  |  |
| --- | --- |
| Phase | Duration(Week) |
| Project selection | 1 |
| Plan |
| Requirement Analysis | 1.5 |
| Design |
| Implementation | 3 |
| Test | 1 |
| Close | 1 |

Actual schedule:

|  |  |
| --- | --- |
| Phase | Duration(Week) |
| Project selection | 1 |
| Plan |
| Requirement Analysis | 1 |
| Design |
| Implementation | 4 |
| Test | 1 |
| Close | 1 |

## Cost

We get the develop software and hardware free. The only cost is personnel time.

# Job Evaluation

## Work Efficiency Evaluation

Since the whole team has no Unity3D development experience, it takes more time to learn and use than expected. Others go well in developing.

## Product Quality Evaluation

The Chinese Chess game can run successfully and fit all the function requirements. In addition, it’s fun and interesting.

## Used Technique Evaluation

We take Unity3D as develop platform, Mono Develop as IDE, and GitHub as code manage tools.

## Mistakes Analysis

Most of the problems are failure we met come from the lack of experience. We overcome them with Unity Official Documents and technique blogs.

# Experience and Summary

We get an in-depth understanding of the process of software development and the method of teamwork. At the same time, we get some the Unity3D development skills.