Enabling Efficient Go Game on Android Platform

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1. INTRODUCTION

Human&Computer interactive go game on cell phone is everywhere today. Our project's "bang for the buck" lies in connecting cell phone users to worldwide weichi players on the Internet in mobile manner and getting a good weichi assistantship on mobile device. This could not be achieved previously due to the relative isolation of individule cell phones from 3G resources and their limited computing capability, which could be overcomed by recent achievements in wide coverage of the wireless network and 3G networks, ability of cell phones to acess Internet, open APIs of cell phone OS, etc.. Our project is on the way to take advantage of these achievements to upgrade cell phones' game playing environment.

Risks might include:

—limited cell phone computing resources;

—open search algorithm;

—unfamiliar with KGS server's protocol;

—unfamiliar with Android development environment.

2. BACKGROUND AND RELATED WORK

3. SYSTEM DESIGN

3.1 Requirements

(1) To allow someone to play weichi go game anywhere with other remote players;

(2) To work as a game assistant recommending a good move.

3.2 Specifications

Our system

(1) Provides an interface to allow mobile weichi players to manipulate a go board;

(2) Provides a go engine through which mobile weichi players send go instructions and get assistance for next move;

(3) Provides a platform to enable mobile weichi players to log on KGS GO server to play go against people all over the world.

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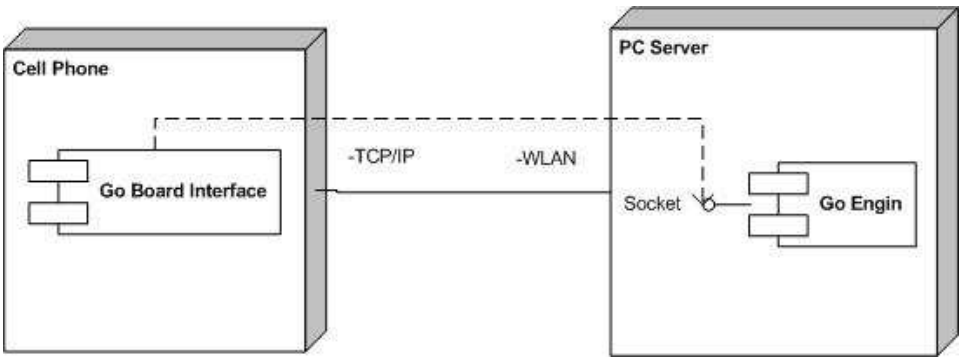
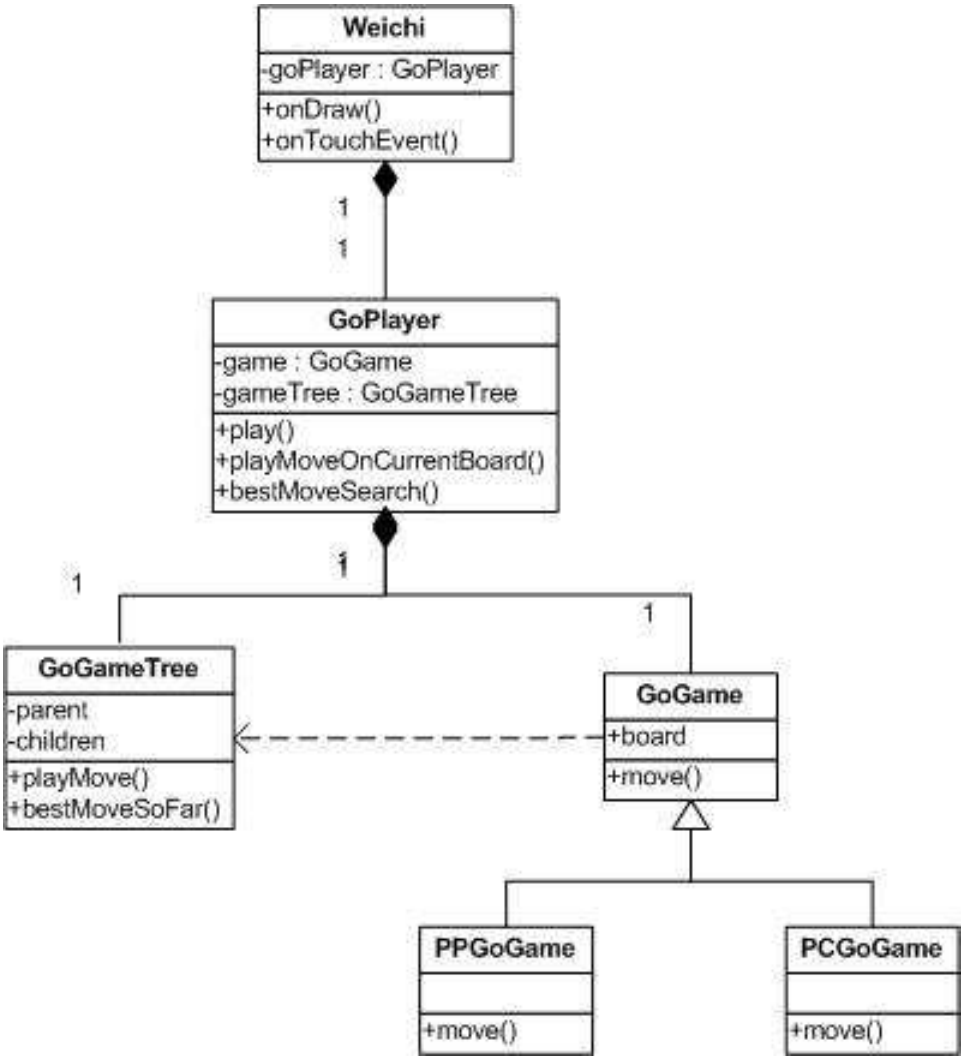


3.3 Design
4. EVALUATION
4.1 Usage Scenarios
4.2 Test Results
5. CONCLUSION
REFERENCES


Weichi
-goPlayer : GoPlayer
+onDraw()
+onTouchEvent()
1
1
GoPlayer
-game : GoGame
-gameTree : GoGameTree
+play()
+playMoveOnCurrentBoard()
+bestMoveSearch()
1
1
1
1
GoGameTree
-parent
-children
+playMove()
+bestMoveSoFar()
GoGame
+board
+move()
PPGoGame
+move()
PCGoGame
+move()

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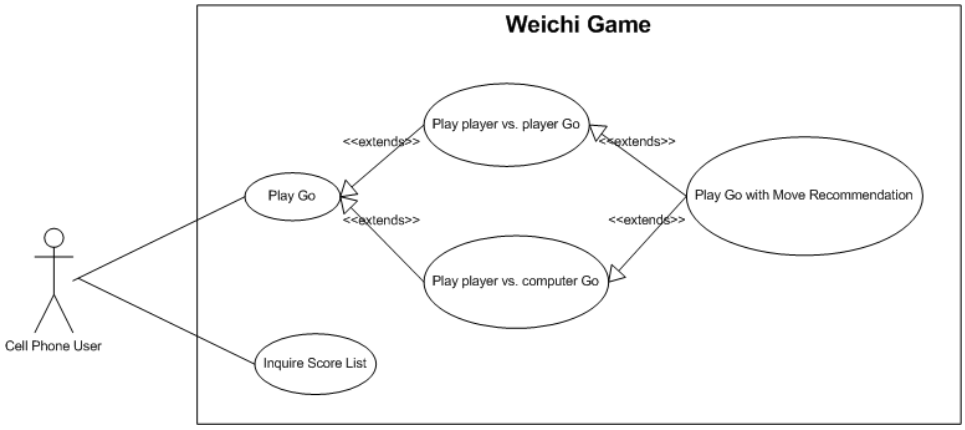
Weichi Game
Play player vs. player Go
<<extends>>
<<extends>>
Play Go
Play Go with Move Recommendation
<<extends>>
<<extends>>
Play player vs. computer Go
Cell Phone User
Inquire Score List