

Mar 24, 04 12:43

GUIPlayer.java

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```

/*
 * Created on Mar 24, 2004
 */
package ooga;

/**
 *
 */
public class GUIPlayer implements IPlayer {

    private GUIView myView;
    public GUIPlayer(GUIView view){
        myView = view;
    }
    /**
     * @see ooga.IPlayer#getMove(ooga.IGameModel)
     */
    public Move getMove(IGameModel model) {
        Move move = null;
        myView.allowMoves(true);
        while ((move = myView.getMove()) == null){
            try {
                Thread.sleep(500);
            } catch (InterruptedException e) {
                break; // out of loop
            }
        }
        myView.allowMoves(false);
        return move;
    }

    /**
     * @see ooga.IPlayer#getName()
     */
    public String getName() {
        // TODO Auto-generated method stub
        return "GUIplayer";
    }
}

```

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GUIView.java

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```

/*
 * Created on Mar 23, 2004
 */
package ooga;
import java.awt.BorderLayout;
import java.awt.Dimension;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.*;

/**
 *
 */
public class GUIView extends JFrame implements IView {
    private Move myMove;
    private ActionListener myBL;
    private static final String BLANK = " ";
    private JButton[][] myButtons;
    private TTTModel myModel;
    private static Font BIG_FONT =
        new Font("SansSerif", Font.BOLD, 24);

    public GUIView(TTTModel model)
    {
        this.setTitle("TTT");
        myModel = model;
        JPanel panel = new JPanel(new BorderLayout());
        setContentPane(panel);
        fillPanel(panel);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        pack();
        setVisible(true);
    }

    public void allowMoves(boolean on){
        myMove = null;
        for(int j=0; j < 3; j++){
            for(int k=0; k < 3; k++){
                if (myButtons[j][k].getText().equals(BLANK)){
                    myButtons[j][k].setEnabled(on);
                }
                else {
                    myButtons[j][k].setEnabled(false);
                }
            }
        }
    }

    private void fillPanel(JPanel panel){
        myBL = new ActionListener(){

            public void actionPerformed(ActionEvent e) {
                doMove(e.getActionCommand());
            }
        };
        JPanel bp = new JPanel(new GridLayout(3,3));
        myButtons = new JButton[3][3];
        for(int j=0; j < 3; j++){
            for(int k=0; k < 3; k++){
                myButtons[j][k] = new JButton(BLANK);
                myButtons[j][k].setFont(BIG_FONT);
                myButtons[j][k].setPreferredSize(new Dimension(7
5, 75));
                bp.add(myButtons[j][k]);
                myButtons[j][k].addActionListener(myBL);
            }
        }
    }
}

```

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GUIView.java

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```

        myButtons[j][k].setActionCommand(""+j+"."+k);
    }
    panel.add(bp, BorderLayout.CENTER);
}
/**
 * @param string
 */
protected void doMove(String s) {
    int row = Integer.parseInt(s.substring(0,1));
    int col = Integer.parseInt(s.substring(2,3));
    myMove = new Move(row,col);
}

/**
 * @see ooga.IView#show(ooga.IGameModel)
 */
public void show(IGameModel model) {
    TTTGrid grid = (TTTGrid) model.getGrid();
    for(int j=0; j < 3; j++){
        for(int k=0; k < 3; k++){
            String s = ""+(char)grid.getValue(j,k)+" ";
            if (s.trim().length() == 0){
                s = BLANK;
            }
            System.out.print(""+k+" "+s+" ");
            myButtons[j][k].setText(s);
        }
        System.out.println();
    }

    public Move getMove(){
        return myMove;
    }

    public static void main(String[] args){
        TTTModel m = new TTTModel();
        GUIView gv = new GUIView(m);
    }
}

```

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TTTMain.java

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```
/*
 * Created on Mar 18, 2004
 */
package ooga;

/**
 *
 */
public class TTTMain {
    public static void main(String[] args){
        IGameModel model = new TTTModel();
        IPlayer p1 = new ComputerPlayer(model);
        //IPlayer p2 = new ComputerPlayer(model);
        GUIView gview = new GUIView((TTTModel)model);
        GUIPlayer p2 = new GUIPlayer(gview);
        model.addView(gview);
        TTTController con = new TTTController(model);
        con.addPlayer(p1);
        con.addPlayer(p2);
        con.play();
    }
}
```

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IPlayer.java

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```
/*
 * Created on Mar 18, 2004
 * @author: Owen Astrachan
 */
package ooga;

public interface IPlayer {
    public Move getMove(IGameModel model);
    public String getName();
}
```

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IView.java

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```
/*
 * Created on Mar 18, 2004
 */
package ooga;

/**
 *
 */
public interface IView {
    public void show(IGameModel model);
}
```

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TTTController.java

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```
/*
 * Created on Mar 18, 2004
 */

package ooga;

/**
 * @author Owen Astrachan
 */
public class TTTController {
    private IPlayer[] myPlayers;
    private int myIndex;
    private IGameModel myModel;

    public TTTController(IGameModel model){
        myPlayers = new IPlayer[2];
        myIndex = 0;
        myModel = model;
    }

    public void addPlayer(IPlayer p){
        myPlayers[myIndex] = p;
        myIndex++;
    }

    public void play(){
        myIndex = 0;
        TTTModel model = (TTTModel) myModel;
        while (!myModel.gameOver()){
            IPlayer p = myPlayers[myIndex];
            myIndex = 1 - myIndex;
            model.makeMove(p);
        }
        if (myModel.gameOver()){
            System.out.println("Go Devils!");
        }
    }
}
```