Class Diagram - Tetris

Level3
+ choosePiece() : int

«interface» ILevel
+ choosePiece() : int

Level2
+ choosePiece() : int

Level1
+ choosePiece() : int

«interface» IPiece
+ getGraphic(Graphics) : Graphics
+ move(int, Color[][]) : boolean

-piece

KeyController *KeyAdapter*
- KEY_DOWN: int = KeyEvent.VK_DOWN
- KEY_LEFT: int = KeyEvent.VK_LEFT
- KEY_RIGHT: int = KeyEvent.VK_RIGHT
- KEY_ROTATE: int = KeyEvent.VK_UP
~ tetris: Tetris

+ getKeyDown() : int
+ getKeyLeft() : int
+ getKeyRight() : int
+ getKeyRotate() : int
+ KeyController(Tetris)
+ keyPressed(KeyEvent) : void
+ keyReleased(KeyEvent) : void
+ setKeyDown(int) : void
+ setKeyLeft(int) : void
+ setKeyRight(int) : void
+ setKeyRotate(int) : void

javax.swing.JFrame

javax.swing.JPanel

OptionFrame
~ controller: KeyController
~ downtxt: javax.swing.JTextField
~ keyDown: int
~ keyLeft: int
~ keyRight: int
~ keyRotate: int
~ lefttxt: javax.swing.JTextField
~ righttxt: javax.swing.JTextField
~ rotatetxt: javax.swing.JTextField
~ sound: SoundPlayer
~ soundSelection: javax.swing.JComboBox
~ updateButton: javax.swing.JButton

- downPressed(java.awt.event.KeyEvent) : void
- initComponents() : void
- jButton2ActionPerformed(java.awt.event.ActionEvent) : void
- leftPressed(java.awt.event.KeyEvent) : void
- optionClosing(java.awt.event.WindowEvent) : void
+ OptionFrame()
- resetButtonActionPerformed(java.awt.event.ActionEvent) : void
- rightPressed(java.awt.event.KeyEvent) : void
- rotatePressed(java.awt.event.KeyEvent) : void
+ setKeyController(KeyController) : void
+ setSoundPlayer(SoundPlayer) : void
- soundTest(java.awt.event.ItemEvent) : void
- updateButtonActionPerformed(java.awt.event.ActionEvent) : void

java.lang.Thread

PieceFactory
- pieces: IPiece ([])
+ getPiece(int) : IPiece
+ PieceFactory()

Piece
- color: Color
- figtype: int
- maxheight: int
+ MOVE_DOWN: int {readOnly}
+ MOVE_DOWN_SPEED: int {readOnly}
+ MOVE_LEFT: int {readOnly}
+ MOVE_PAUSE: int {readOnly}
+ MOVE_RIGHT: int {readOnly}
+ MOVE_ROTATE: int {readOnly}
- speed: boolean = false
- x: int ([])
- y: int ([])

- clear(Color[][]) : void
- draw(Color[][]) : void
+ getFigureType() : int
+ getGraphic(Graphics) : Graphics
- isAbleToLeft(Color[][]) : boolean
- isAbleToRight(Color[][]) : boolean
- isAbleToRotate(Color[][]) : boolean
- isDown(Color[][]) : boolean
- isInside(int, int, Color[][]) : boolean
+ move(int, Color[][]) : boolean
- moveDown() : void
- moveDownSpeed() : void
- moveLeft() : void
- moveRight() : void
- moveRotate() : void
+ Piece(int)

PieceMover *Thread*
- board: Color ([][])
- factory: PieceFactory
- iLevel: ILevel
- level: int = 1
- maxheight: int = 37
- piece: IPiece
- score: int
- showPiece: IPiece
- tetris: Tetris

+ changeBackground(Graphics) : void
+ changeShowNextPiece(Graphics) : void
- dropPiece() : boolean
- getNextPiece() : IPiece
- keepScore() : void
- moveDown(int) : void
+ newGame() : void
+ PieceMover(Tetris)
+ run() : void
+ showNextPiece() : IPiece

Tetris
- activateSound: boolean = false
- boardPanel: java.awt.Panel
- currentCommand: int = Piece.MOVE_DOWN
- currentScore: int
~ f: OptionFrame
- keycontrol: KeyController
- mover: PieceMover
- pause: boolean = false
- sound: SoundPlayer

+ getCommand(int) : int
+ initComponents() : void
+ isPaused() : boolean
+ main(String[]) : void
- optionButtonActionPerformed(java.awt.event.ActionEvent) : void
+ over() : void
- pauseButtonActionPerformed(java.awt.event.ActionEvent) : void
+ repaint() : void
- soundControlButtonActionPerformed(java.awt.event.ActionEvent) : void
- startButtonActionPerformed(java.awt.event.ActionEvent) : void
+ Tetris()
+ update(Graphics) : void
+ updateScore(int, int) : void

javax.swing.JTextField

javax.swing.JButton

SoundPlayer
- audioInputStream: AudioInputStream
- audioInputStream2: AudioInputStream
- clip: Clip
- clipScore: Clip
- soundName: String
~ soundScore: String
~ url: URL
~ urlScore: URL

- init() : void
- load() : void
+ play() : void
+ playLoop() : void
+ playScore() : void
+ SoundPlayer()
+ stop() : void
+ updateSound(String) : void