Notes:
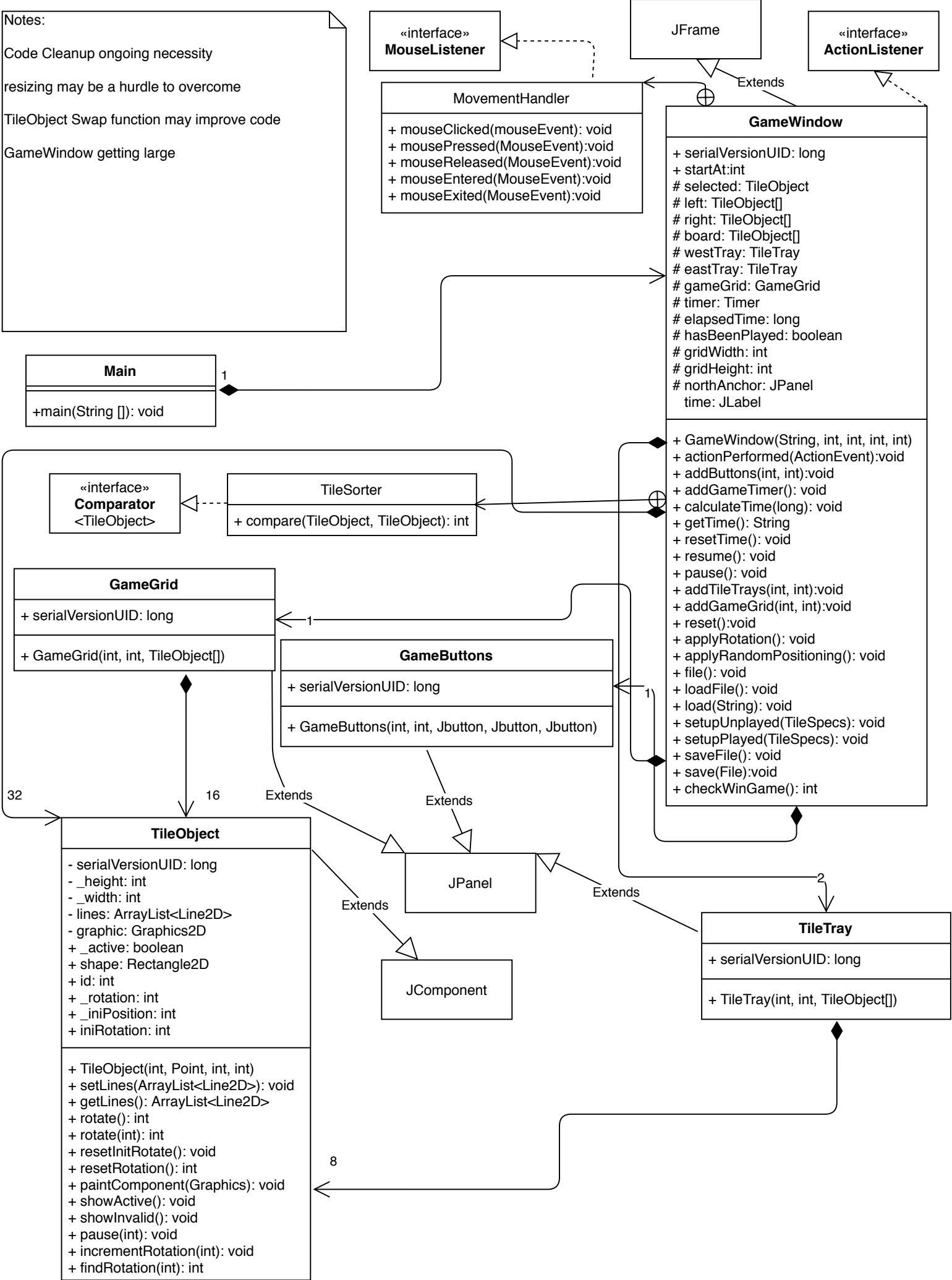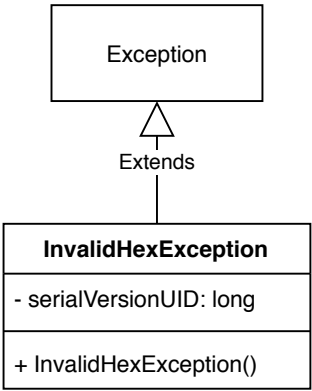
Code Cleanup ongoing necessity

resizing may be a hurdle to overcome

TileObject Swap function may improve code

GameWindow getting large

«interface»
MouseListener

JFrame

«interface»
ActionListener

MovementHandler

+ mouseClicked(mouseEvent): void
+ mousePressed(MouseEvent):void
+ mouseReleased(MouseEvent):void
+ mouseEntered(MouseEvent):void
+ mouseExited(MouseEvent):void

GameWindow

+ serialVersionUID: long
+ startAt:int
# selected: TileObject
# left: TileObject[]
# right: TileObject[]
# board: TileObject[]
# westTray: TileTray
# eastTray: TileTray
# gameGrid: GameGrid
# timer: Timer
# elapsedTime: long
# hasBeenPlayed: boolean
# gridWidth: int
# gridHeight: int
# northAnchor: JPanel
  time: JLabel

+ GameWindow(String, int, int, int, int)
+ actionPerformed(ActionEvent):void
+ addButtons(int, int):void
+ addGameTimer(): void
+ calculateTime(long): void
+ getTime(): String
+ resetTime(): void
+ resume(): void
+ pause(): void
+ addTileTrays(int, int):void
+ addGameGrid(int, int):void
+ reset():void
+ applyRotation(): void
+ applyRandomPositioning(): void
+ file(): void
+ loadFile(): void
+ load(String): void
+ setupUnplayed(TileSpecs): void
+ setupPlayed(TileSpecs): void
+ saveFile(): void
+ save(File):void
+ checkWinGame(): int

Extends

Main

+main(String []): void

1

«interface»
Comparator
<TileObject>

TileSorter

+ compare(TileObject, TileObject): int

GameGrid

+ serialVersionUID: long

+ GameGrid(int, int, TileObject[])

1

GameButtons

+ serialVersionUID: long

+ GameButtons(int, int, Jbutton, Jbutton, Jbutton)

1

Extends

TileObject

- serialVersionUID: long
- _height: int
- _width: int
- lines: ArrayList<Line2D>
- graphic: Graphics2D
+ _active: boolean
+ shape: Rectangle2D
+ id: int
+ _rotation: int
+ _iniPosition: int
+ iniRotation: int

+ TileObject(int, Point, int, int)
+ setLines(ArrayList<Line2D>): void
+ getLines(): ArrayList<Line2D>
+ rotate(): int
+ rotate(int): int
+ resetInitRotate(): void
+ resetRotation(): int
+ paintComponent(Graphics): void
+ showActive(): void
+ showInvalid(): void
+ pause(int): void
+ incrementRotation(int): void
+ findRotation(int): int

32

16

8

Extends

JPanel

Extends

JComponent

TileTray

+ serialVersionUID: long

+ TileTray(int, int, TileObject[])

Extends

2

Exception

△
Extends

InvalidHexException

- serialVersionUID: long

+ InvalidHexException()

Converter

+ convertToFloat(byte[]): float
+ floatToByte(float): byte[]
+ convertToInt(byte[]): int
+ intToByte(int): byte[]
+ convertToLong(byte[]): long
+ longToByte(long): byte[]
+ byteToHex(byte): String
+ convertToHex(byte[]): string
+ decodeHexString(String): byte[]
+ hexToByte(String): byte
+ toDigit(char): int

TileSpecs

- fileName: String
- hexValue: String
- gameState: String
- numTiles: int
- tilePositions: int[]
- tileRotations: int[]
- numLines: int[]
- endPoints: ArrayList<Line2D>
- xyCoords: float[]
- finalCoords: ArrayList<ArrayList<Line2D>>

+ TileSpecs()
+ TileSpecs(string)
+ TileSpecs(TileObject[], boolean)
+ readAllBytes(): void
+ writeAllBytes(File): void
+ hexComparator(String): void
+ setHexValue(String): void
+ setFileName(String): void
+ setPlayTime(long): void
+ getGameState(): String
+ getHexValue(): String
+ getPlayTime(): long
+ getNumTiles(): int
+ getTilePositions(): int[]
+ getTileRotations(): int[]
+ getNumLines(): int[]
+ getFinalCoords(): ArrayList<ArrayList<Line2D>>