Program Overview

GUI

BoardGraphics

+BoardGraphics(Board)
+getCell(Position): CellGraphics
+getGap(Position, border: int): GapGraphics
+setBorderWidths(int)
+setGapHeight(row: int, gap: int)
+setGapWidth(col: int, gap: int)
+getBoard(): Board

CellGraphics

setBorderWidths(int)
setColor(Color)
setText(String)

GapGraphics

+GapGraphics(text: String)

Controller

+loadPuzzle(fileName: String)
+savePuzzle(fileName: String)
+solve()
+stopSolver()
+setSolverSpeed(speed: int)
+togglePause()

SudokenGUI

setIsPuzzleLoaded(boolean)
setIsSolverPaused(boolean)
processUpdatedBoard()

BoardWidget

+setBoard(Board)
+setNoBoard()

BoardDecorator

+decorate(BoardGraphics)
+addConstraintDecorator(ConstraintDecorator)

ExtensionManager

+hasExtension(String):boolean
+getExtension(String): Extension
-loadExtensions()

Extension

+getParser(): SectionParser
+getCreator(): BoardCreator
+getDecorator(): BoardDecorator

Solver

+*setSudokuBoard(Board)*
+*getSudokuBoard(): Board*
+*solve():boolean*

Constraint

+canHandle(Position)
+isViolated(Board): boolean
+getPluginProvider: String
+save(): String
+shouldSave(): boolean

Board

+getWidth(): int
+getHeight(): int
+getValue(Position): int
+setValue(Position, int)
+getConstraints(): Collection<Constraints>

SectionParser

+load(idetifier: String, width: int, height: int):
Collection<Constraint>
+save(Collection<Constraint>): List<String>

BoardCreator

+create(width: int, height: int, grid: int[][],
constaints: Collection<Constraint>): Board

Parser

+load(File): Board
+save(Board, File)