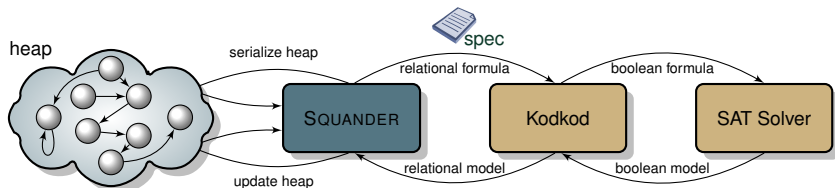


Squander - Unifying Execution of Imperative and Declarative Code



```
public class Sudoku {  
    private int[][] grid = new int[9][9];  
  
    @Ensures({  
        "all row in {0 ... 8} | this.grid[row][int] = {1 ... 9}",  
        "all col in {0 ... 8} | this.grid[int][col] = {1 ... 9}",  
        "all r, c in {0, 1, 2} | this.grid[{r*3 ... r*3+2}][{c*3 ... c*3+2}] = {1 ... 9}"})  
    @Modifies("this.grid[int].elems | -<@ = 0")  
    public void solve() { Squander.exe(this); }  
}
```

specify and solve constraint problems in place

no manual translation to/from an external solver

executable first-order, relational specifications for Java