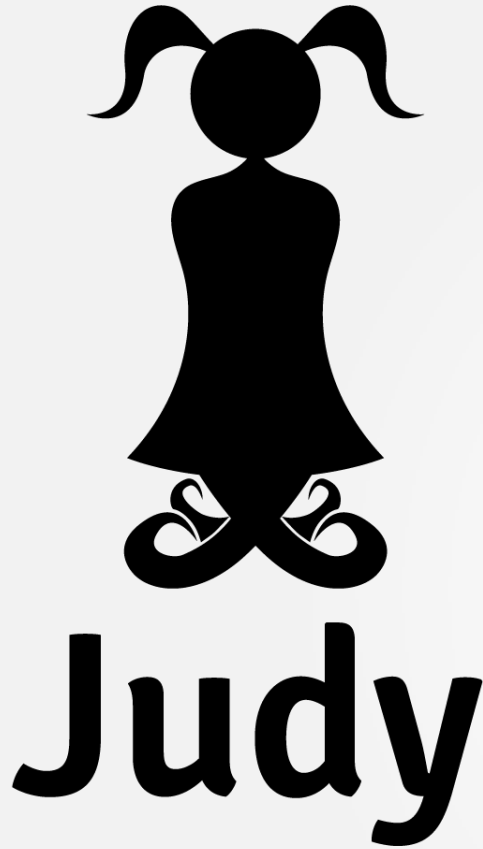


# Mutation testing tool for Java

Development team: [Lech Madeyski](http://madeyski.e-informatyka.pl) with PhD & MSc students at Wroclaw University of Technology  
<http://madeyski.e-informatyka.pl/tools/judy/>

## Main features

- **Higher Order Mutations**  
4 strategies: JudyDiffOp, Last2First, RandomMix, NeighPair)
- **First Order Mutations**  
vast number of object-oriented (modyfing polymorphic calls, inheritance of the methods and Java specific) & structural mutation operators
- **Extremely fast!**



## Extremely fast

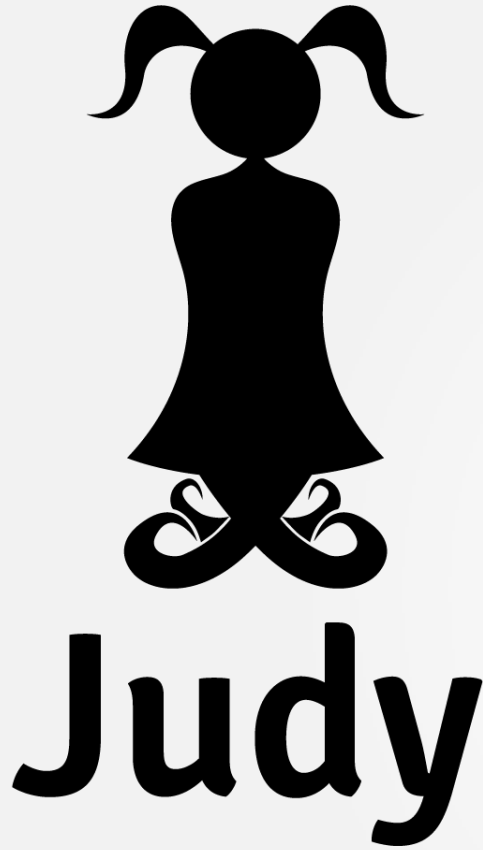
- **Byte code modifications**
- **Distributed and parallel computations** over multiple machines
- **Cache mechanism**
- **Heuristic-based order of tests execution**
- Detection of classes without tests, destroyed loops...

### Judy

needs only **11 seconds**

to generate **20 000 mutants**

using only **1** ordinary notebook (HP Compaq 6530)



## More details

- **Written in Java and for Java**
- **Real world applications support**  
e.g. Apache projects (Commons Lang, Math, IO, CLI) with branch coverage 84-95% and up to 80000 LOC
- **Easy configuration**  
configuring and launching mutation tests via command line and with comprehensive, yet easy to create, configuration file
- **Windows and Linux support**
- **Build-in cluster support** for distributed computations