### Profiling

#### Michael A. Hawker

# **Benefits of Profiling**

- Easy
- Practical
- Learn about your program
- What's running where?
- Find weak spots
- Optimization

# **Roots: gprof**

- Single Additional Compilation Option
- Run program
- Get Profile

• -pg

- programname
- gprof programname

# **Profiling in Java**

- Eclipse: Test and Performance Tools Platform
- Just like any other plug-in
- Few extra options when running
- Visual Interface
- Control



# **Using TPTP in Eclipse**

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- You now have a Profile Run Option
- Click on it, and click on your usual run target
- You now have a "Monitor" Tab
- Select The Memory and Execution Analysis Options
- Click Profile!

# **Profiling Analysis in Eclipse**

- Let your program run a while
- New Perspective
- Can Open Memory and Execution Statistics Tabs

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# **Drawbacks to Profiling**

- Short Samples can be inaccurate
- Profiling slows down actual performance with monitoring
- Still good approximation of what's taking the most time
- Initialization is included in your stats, be careful

### END

#### Any Questions?