Profiling

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Benefits of Profiling

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

Roots: gprof

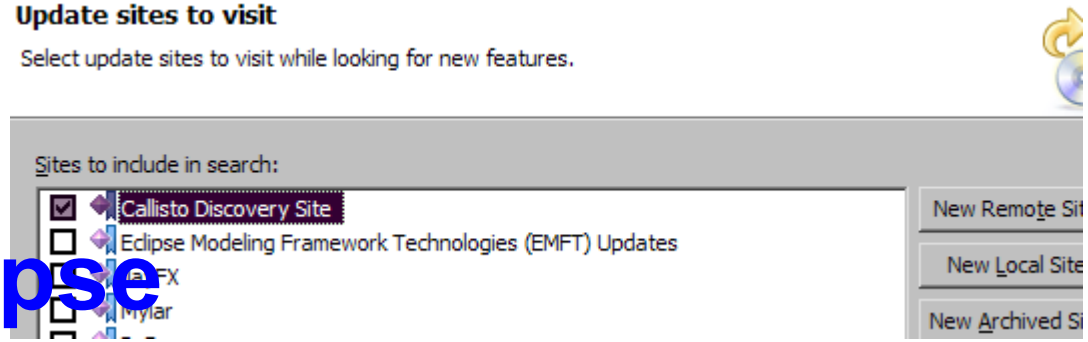
- Single Additional Compilation Option
- Run program
- Get Profile

- -pg
- programname
- gprof programname

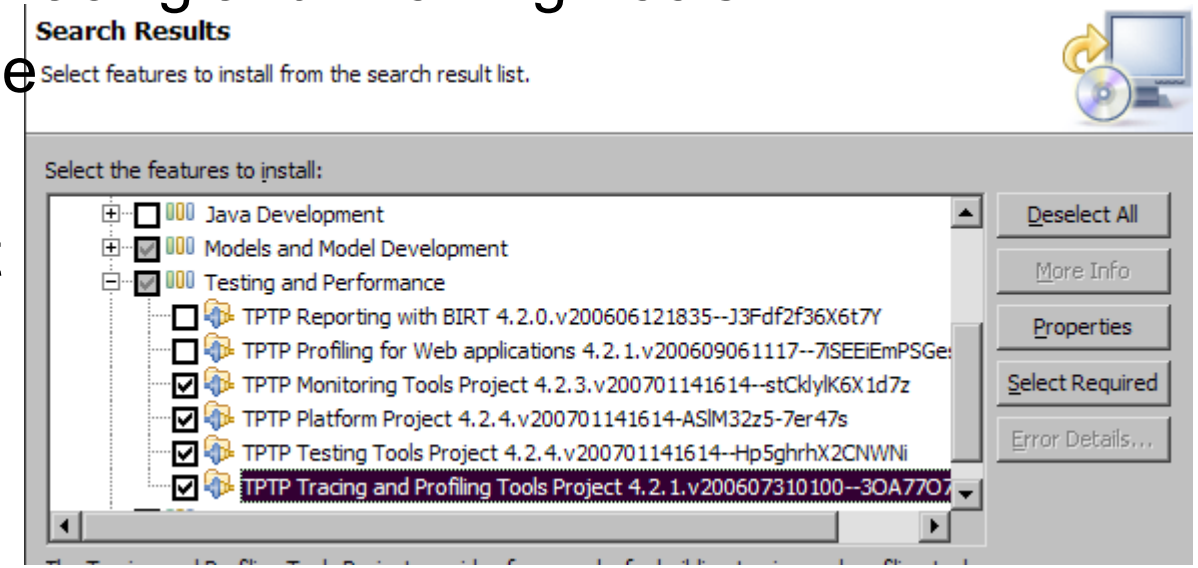
Profiling in Java

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

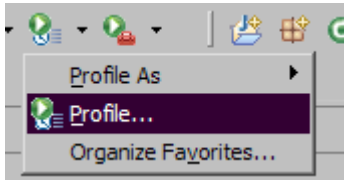
Setup in Eclipse

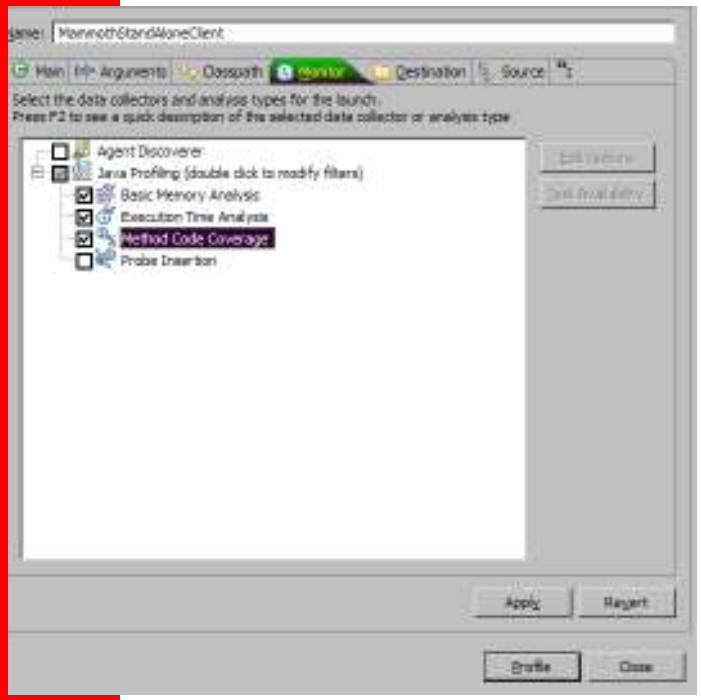


- Help > Software Updates > Find and Install…
- Search for new features to install
- Select and Search Callisto Discovery Site
- Select TPTP Tracing and Profiling Tools
- Accept License
- Finish
- Wait…Restart



Using TPTP in Eclipse

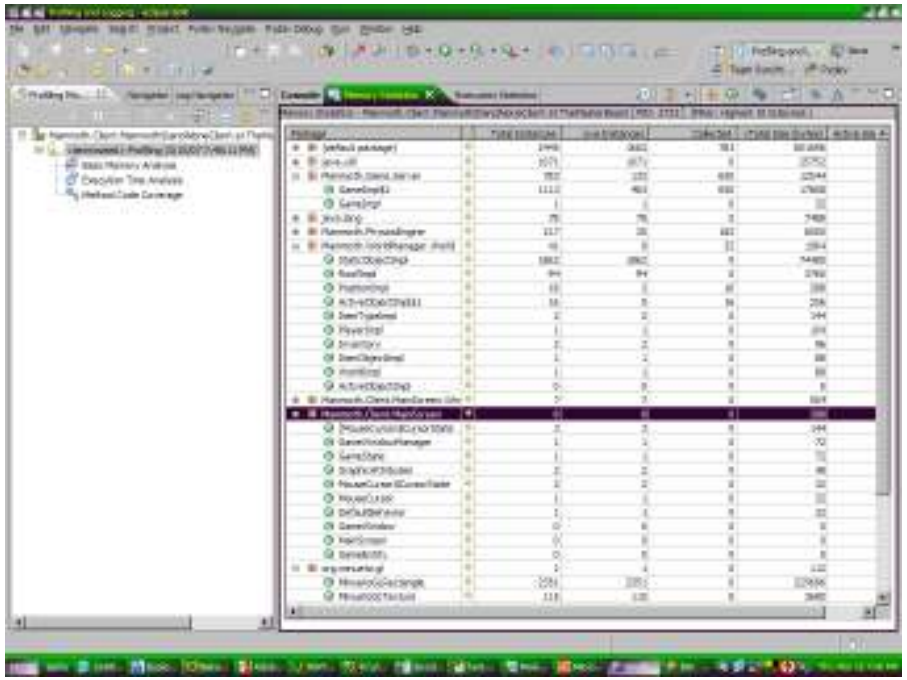




- You now have a Profile Run Option
- Click on it, and click on your usual run target
- You now have a “Monitor” Tab
- Select The Memory and Execution Analysis Options
- Click Profile!

Profiling Analysis in Eclipse

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



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?