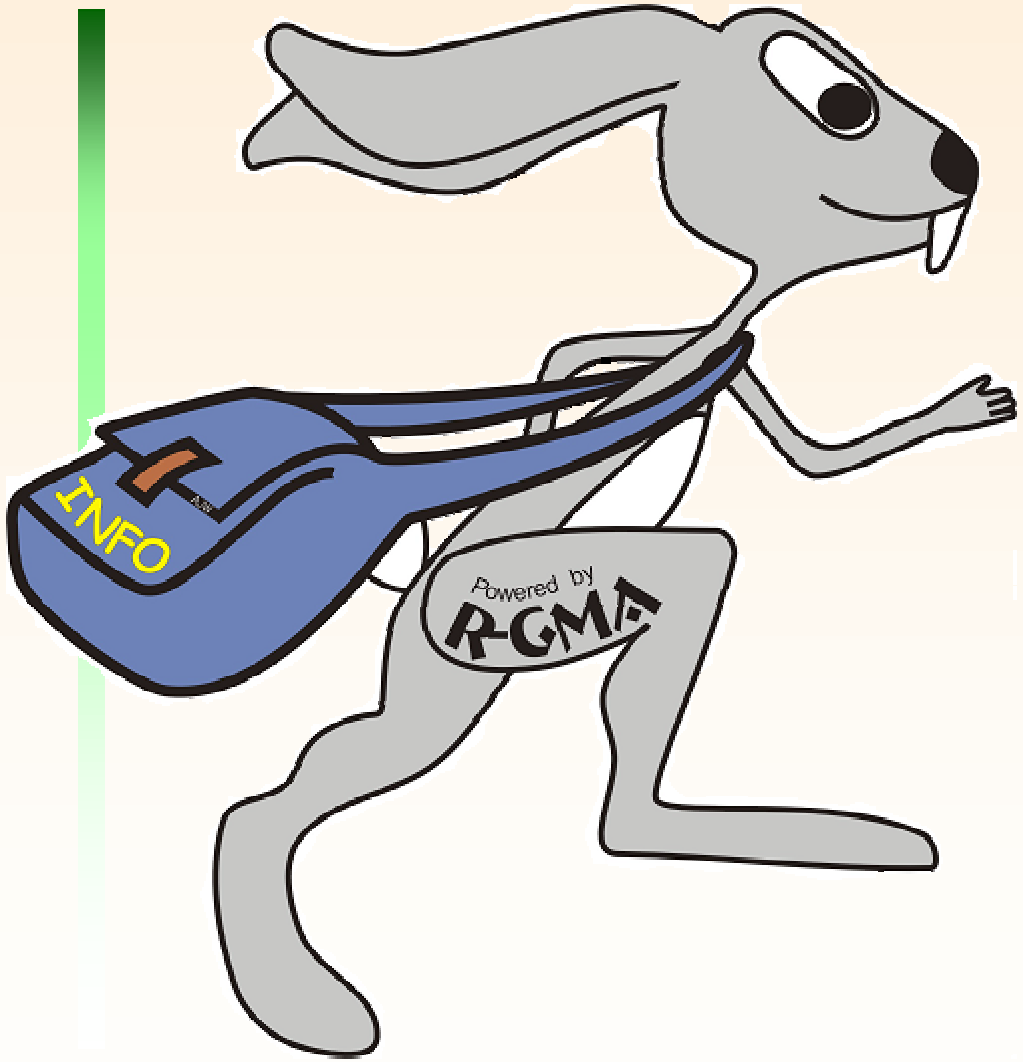

Resilience & Performance Tools

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3/4/2003

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NetLogger

- Half integrated
- The NetLogger people very willing to help us
- Have added some log4J like code to control it
- Need to identify traces as a tuple flows through system
- A tuple can be published as a NetLogger event
  - Some overhead in our code generating the event from the tuple will distort a little
  - Then use a known series of events e.g.

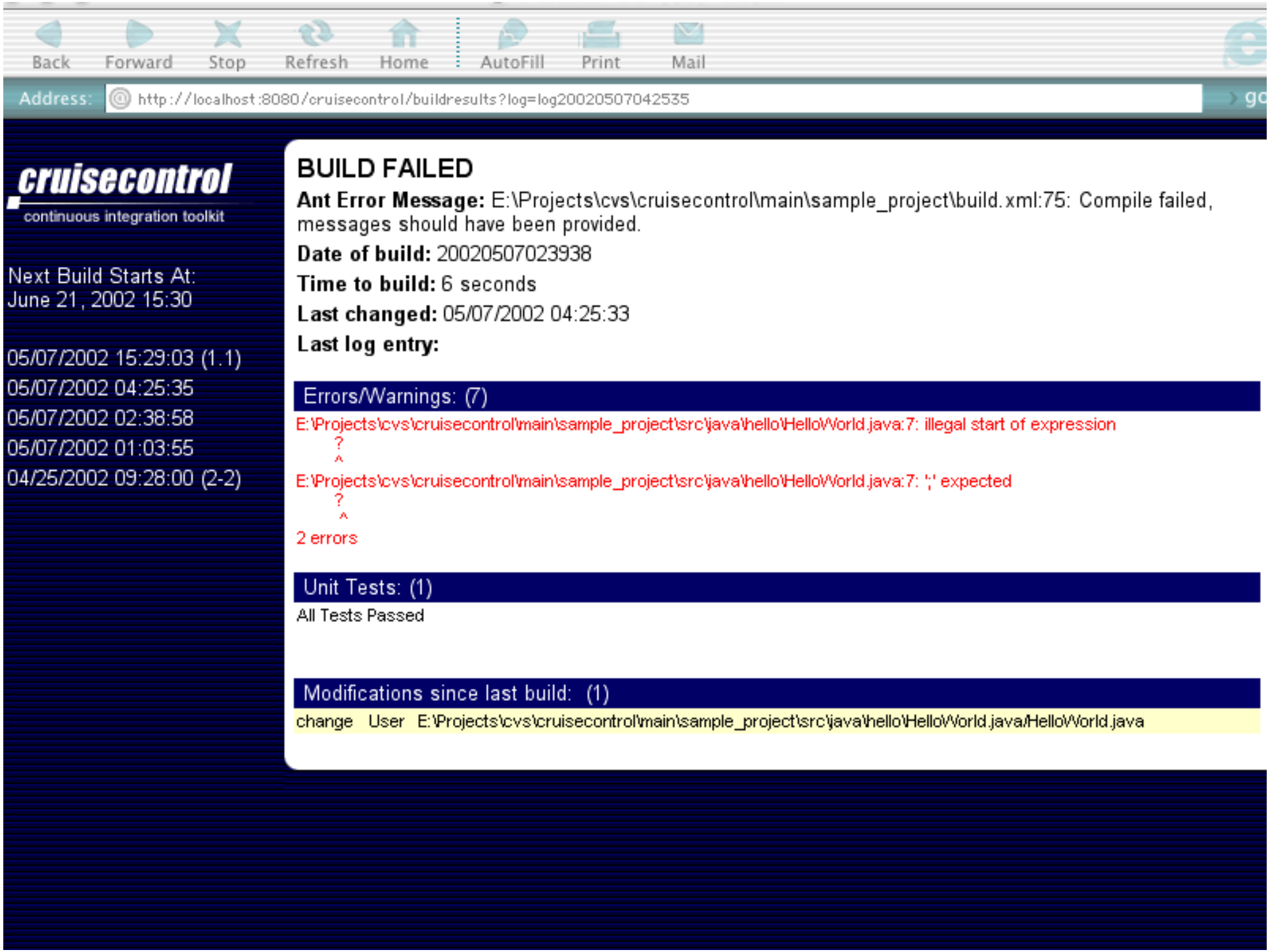
Number
1
2

Valgrind

- Runs on executable (preferably compiled and linked with –g)
- QAG tells us to use it
- It is an Intel VM
  - “a tool that helps you find memory management problems in programs. When a program is run under Valgrind's supervision, all reads and writes of memory are checked, and calls to malloc/new/free/delete are intercepted. As a result, Valgrind can detect problems such as use of uninitialized memory, reading/writing of memory after it has been freed, reading/writing off the end of malloced blocks, reading/writing inappropriate areas on the stack, memory leaks in which pointers to malloced blocks are lost forever, passing of uninitialized and/or unaddressable memory to system calls, and mismatched use of malloc/new/new [] vs. free/delete/delete [].”
- See http://developer.kde.org/~sewardj/

CruiseControl

- “a framework for a continuous build process. It includes, but is not limited to, plugins for email notification, Ant, and various source control tools. A web interface is provided to view the details of the current and previous builds.”
- “determine if a build is necessary, build, create a log file, and send notifications. The daemon process will wake up at a user defined time interval and attempt a build cycle. Each time, the configuration file will be reloaded so that the CruiseControl process need not be restarted for the changes to take effect. At the end of the build, a log file will be written for use by the Build Results JSP.”
- See http://cruisecontrol.sourceforge.net/index.html


Back
Forward
Stop
Refresh
Home
AutoFill
Print
Mail
Address:
http://localhost:8080/cruisecontrol/buildresults?log=log20020507042535
cruisecontrol
continuous integration toolkit
Next Build Starts At:
June 21, 2002 15:30
05/07/2002 15:29:03 (1.1)
05/07/2002 04:25:35
05/07/2002 02:38:58
05/07/2002 01:03:55
04/25/2002 09:28:00 (2-2)
BUILD FAILED
Ant Error Message: E:\Projects\cvs\cruisecontrol\main\sample_project\build.xml:75: Compile failed, messages should have been provided.
Date of build: 20020507023938
Time to build: 6 seconds
Last changed: 05/07/2002 04:25:33
Last log entry:
Errors/Warnings: (7)
E:\Projects\cvs\cruisecontrol\main\sample_project\src\java\hello\HelloWorld.java:7: illegal start of expression
?
^
E:\Projects\cvs\cruisecontrol\main\sample_project\src\java\hello\HelloWorld.java:7: ';' expected
?
^
2 errors
Unit Tests: (1)
All Tests Passed
Modifications since last build: (1)
change User E:\Projects\cvs\cruisecontrol\main\sample_project\src\java\hello\HelloWorld.java/HelloWorld.java

Performance and code coverage

- Commercial
  - OptimizeIT from Borland ($1,599.00)
- Eclipse plugins (free)
  - http://eclipsecolorer.sourceforge.net/ (looks pretty)
  - http://jmechanic.sourceforge.net/ (not sure)

Metrics

- Jdepend
  - JDepend traverses Java class file directories and generates design quality metrics for each Java package. JDepend allows you to automatically measure the quality of a design in terms of its extensibility, reusability, and maintainability to effectively manage and control package dependencies.
- ANT supports it
- Can be used with JUnit
- See: http://www.clarkware.com/software/JDepend.html