

Guantanamo

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svn co <http://svn.codehaus.org/ashcroft/guantanamo>

Introduction

Do you have problems maintaining high test coverage? All code is guilty until tested innocent. Send the untested code to Guantanamo!

Guantanamo is a tool that can delete all code lines that are not covered by tests. It can also delete code that is not covered by the application itself. Guantanamo is part of the [Extreme XP Tools](#) family. Some thoughts about why it was created are written down [here](#). Consider this sample coverage report by Clover:

Clover coverage report - Coverage timestamp: Sat Oct 2 2004 02:40:19 EDT Overview Package File	file stats: LOC: 20 NCLOC: 17 Methods: 2 Classes: 1
---	---

Source file	Conditionals	Statements	Methods	TOTAL
PoorlyTested.java	66.7%	85.7%	100%	80%

```
1 package org.codehaus.guantanamo.testdata;
2
3 public class PoorlyTested {
4 1 public void methodWithUncoveredSimpleIfs() {
5 1     boolean b = true;
6 1     if(b) {
7 1         int i = 1;
8 1         if(i == 0) {
9 0             new Object();
10
11         }
12     }
13
14 2 public void methodWithStatementInIf(String s) {
15 2     if(s.trim().equals("a")) {
16 1         new Object();
17     }
18 }
19 }
20
```

 Report generated by [Clover v1.1.1](#) | Server License.
Sat Oct 2 2004 02:40:21 EDT.

Removing that untested code

Guantanamo has an Ant task that you can use to remove untested (in other words, unreliable) code. It is defined like this:

```
<taskdef name="guantanamo"  
  classname="org.codehaus.guantanamo.ant.GuantanamoTask">  
  <classpath>  
    <pathelement  
      location="lib/guantanamo.jar"/>  
    <pathelement  
      location="lib/xpp3-1.1.2a.jar"/>  
  </classpath>  
</taskdef>
```

And used like this:

```
<guantanamo  
  clover="target/clover/main/coverage-report/clover.xml" dest="target/clover/guantanamo"/>
```

Guantanamo Ant Task Documentation

Property	Description	Required
dest	Where to write the modified sources	Yes
clover	Path to Clover XML Coverage file (clover.xml)	*
jcoverage	Path to JCoverage XML Coverage file (coverage.xml)	*

★ One and only one of these must be specified.

After you have run Guantanamo over your sources, you can run Clover over the guantanamoed sources again and see the wonders it has done. In the case of our example, it would look like the following:

Clover coverage report -		file stats:	LOC: 15	Methods: 2
Coverage timestamp: Sat Oct 2 2004 02:49:30 EDT			NCLOC: 12	Classes: 1
Overview Package File				

Source file	Conditionals	Statements	Methods	TOTAL
PoorlyTested.java	100%	100%	100%	100%

```

1 package org.codehaus.guantanamo.testdata;
2
3 public class PoorlyTested {
4     1 public void methodWithUncoveredSimpleIfs() {
5     1     boolean b = true;
6     1     int i = 1;
7     }
8
9     2 public void methodWithStatementInIf(String s) {
10    2     if(s.trim().equals("a")) {
11    1         new Object();
12    }
13 }
14 }
15

```

Report generated by [Clover v1.1.1](#) | Server License.
Sat Oct 2 2004 02:49:31 EDT.

Eating our own dog food

Guantanamo is eating its own dog food. When it came to a working state, I ran it over itself, just to discover that there were lots of lines of code that were never executed. They no longer exist. And Guantanamo is still working fine. In fact, it has 100% coverage 😊

Removing code that may be run from the tests but isn't run from the app.

This is maybe one of the more interesting usages of Guantanamo. Just instrument your code with Clover or JCoverage (EMMA coming soon) and run the application in the normal way. When the application exits there will be coverage data about what is actually being used by the application. Try running Guantanamo over this coverage report. I'm sure you'll find something different than what you found from running it in conjunction with your tests. You may have to delete some tests that tested "orphan" code!

Goals

- Always leave guantanamoed code in a compiling state.
- Work with other coverage engines than Clover (which is the only supported one for now).

Guantanamo has hijacked [Ashcroft's JIRA](#), where you can post patches, bugs and feature requests.

FAQ

Q: Does the deleted code get deleted from the original sources?

A: No. The original sources are always left unchanged. Guantanamo writes the modified sources to a different folder that you have to specify. It's up to you if you want to transport them back to where they came from.

Q: What about good code without tests? Will it be taken away and sent to Guantanamo too?

A: Yes. We follow our own rules here. Your code has to prove its innocence through coverage. We don't have to prove that the code has bugs, we just assume it has. And therefore it must be taken away. It is for your own security.

Q: If good code is removed, doesn't this question the validity of Guantanamo itself?

A: You can't prove that untested code is good. Things that cannot be proven good must go.

Q: Have you considered that enforcing too strict XP policies on developers may turn them against XP as a whole?

A: Mind your own business, or we'll send your operating system to Guantanamo as well. If you're not with us, you're against us you sloppy waterfall coder! If it isn't 100% covered it is evil, evil, evil!

Q: Why did you choose such a bad-taste name?

A: What's bad taste - the name, or what's going on there? Would you rather look the other way and give the tool a nice name like "summer breeze"?