Bugs, au Naturale.

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public class FunctionCall {
  public static void funct1 () {
    System.out.println ("Inside funct1");
  }
  public static void main (String[] args) {
    int val;
    System.out.println ("Inside main");
    funct1();
    System.out.println ("About to call funct2");
    val = funct2(8);
    System.out.println ("funct2 returned a value of "+ val);
    System.out.println ("About to call funct2 again");
    val = funct2(-3);
    System.out.println ("funct2 returned a value of "+ val);
  }
  public static int funct2 (int param) {
    System.out.println ("Inside funct2 with param "+ param);
    return param * 2;
  }
}

Hmmmm….

Tiger, Tiger, Burning Bright…
Meanwhile, back in Redmond.. (or Bangalore, or Shangahi, or Sunnyvale..)

On the Uniqueness of Code (FSE 2010)

"Let us change our traditional attitude to the construction of programs: Instead of imagining that our main task is to instruct a computer what to do, let us concentrate rather on explaining to human beings what we want a computer to do..."
First, Some Differences
The Skeptic asks..

Is it just that C, Java, Python... are *syntactically* simpler than English?
Does it work?  
**How to tell?**

- Problem: Line-level!
- Cost-sensitive measures more suitable.
- Comparable to static analysis warnings!

...measured using Cost-effectiveness curve.

Findings Summary

- More cost-effective than logistic regression at 5% inspection budget, but not at 20%.
- Cost-effectiveness similar to FindBugs and PMD.
- Entropy-based ordering improves cost-effectiveness of PMD & FindBugs