

SpotBugs Report

Produced using [SpotBugs](#)4.8.6.

Project: se320[SE320_Assn3]

Metrics

355 lines of code analyzed, in 6 classes, in 2 packages.

Metric	Total	Density*
High Priority Warnings	3	8.45
Medium Priority Warnings	2	5.63
Total Warnings	5	14.08

(* Defects per Thousand lines of non-commenting source statements)

Summary

Warning Type	Number
Internationalization Warnings	3
Performance Warnings	2
Total	5

Warnings

Click on each warning link to see a full description of the issue, and details of how to resolve it.

Internationalization Warnings

Warning	Priority	Details
Reliance on default encoding	High	<div>Found reliance on default encoding in src.Finder.find(String, String): new java.io.FileReader(File)</div> <div>In file Finder.java Finder.java, line 21 21 In class src.Finder In method src.Finder.find(String, String) Called method new java.io.FileReader(File) At Finder.java:[line 21] At Finder.java:[line 21]</div>
Reliance on default encoding	High	<div>Found reliance on default encoding in src.Main.<static initializer for Main>(): new java.util.Scanner(InputStream)</div> <div>In file Main.java Main.java, line 9 9 In class src.Main In method src.Main.<static initializer for Main>() Called method new java.util.Scanner(InputStream) At Main.java:[line 9] At Main.java:[line 9]</div>
Reliance on default encoding	High	<div>Found reliance on default encoding in src.Validator.determineMaxLengthOfLineInFile(String): new java.io.FileReader(File)</div> <div>In file Validator.java Validator.java, line 31 31 In class src.Validator In method src.Validator.determineMaxLengthOfLineInFile(String) Called method new java.io.FileReader(File) At Validator.java:[line 31] At Validator.java:[line 31]</div>

Performance Warnings

Warning	Priority	Details
Method concatenates strings using + in a loop	Medium	<div>src.Main.reformatCommand(String) concatenates strings using + in a loop</div> <div>In file Main.java, line 57 In class src.Main In method src.Main.reformatCommand(String) At Main.java:[line 57]</div>
Unused field	Medium	<div>Unused field: FinderTest.command</div> <div>In file FinderTest.java, lines to In class FinderTest Field FinderTest.command In FinderTest.java</div>

Warning Types

Reliance on default encoding

Found a call to a method which will perform a byte to String (or String to byte) conversion, and will assume that the default platform encoding is suitable. This will cause the application behavior to vary between platforms. Use an alternative API and specify a charset name or Charset object explicitly.

Method concatenates strings using + in a loop

The method seems to be building a String using concatenation in a loop. In each iteration, the String is converted to a StringBuffer/StringBuilder, appended to, and converted back to a String. This can lead to a cost quadratic in the number of iterations, as the growing string is recopied in each iteration.

Better performance can be obtained by using a StringBuffer (or StringBuilder in Java 5) explicitly.

For example:

```
// This is bad
String s = "";
for (int i = 0; i < field.length; ++i) {
    s = s + field[i];
}

// This is better
StringBuffer buf = new StringBuffer();
for (int i = 0; i < field.length; ++i) {
    buf.append(field[i]);
}
String s = buf.toString();
```

Unused field

This field is never used. Consider removing it from the class.