Finding differences between versions of a Java class file

Asked 16 years, 3 months ago Modified 15 years, 8 months ago

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I am working with a large Java web application from a commercial vendor. I've received a patch from the vendor in the form of a new .class file that is supposed to resolve an issue we're having with the software. In the past, applying patches from this vendor have caused new and completely unrelated problems to arise, so I want to understand the change being made even before applying it to a test instance.

I've got the two .class files side by side, the one extracted from the currently running version and the updated one from the vendor. JAD and JReversePro both decompile and disassemble (respectively) the two versions to the same output. However, the .class files are different sizes and I see differences in the output of `od -x`, so they're definitely not identical.

What other steps could I take to determine the difference between the two files?

Conclusion:

Thanks for the great responses. Since `javap -c` output is also identical for the two class files, I am going to conclude that Davr's right and the vendor sent me a placebo. While I'm accepting Davr's answer for that reason, it was Chris Marshall and John Meagher who turned me on to javap, so thanks to all three of you.

java **decompiling**

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edited Apr 6, 2009 at 17:39

abatishchev

100k ● 88 ● 301 ● 442

asked Sep 17, 2008 at 22:11

Anonymoose

5,962 ● 4 ● 34 ● 41

4 Answers

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It's possible that they just compiled it with a new version of the java compiler, or with different optimization settings etc, so that the functionality is the same, and the code is the same, but the output bytecode is slightly different.

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answered Sep 17, 2008 at 22:13

davr

19.1k ● 17 ● 80 ● 99

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If you are looking for API level differences the javap tool can be a big help. It will output the method signatures and those can be output to a plain text files and compared using normal diff tools.

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answered Sep 17, 2008 at 22:21

John Meagher

24.6k ● 14 ● 56 ● 57

1

You could try using a diff tool (such as SourceGear's free DiffMerge tool) on the decompiled sources. That should pick up the file differences, although it will likely pick up "insignificant" differences, for example if variables have been named differently in the two versions.

http://www.sourcegear.com/diffmerge/

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answered Sep 17, 2008 at 22:16

alastairs

6,805 ● 10 ● 52 ● 64

1

You can use javap (in $JDK_HOME/bin) to decompile java .class files. It will tell you (for example) the class file version among other things

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answered Sep 17, 2008 at 22:20

oxbow_lakes

134k ● 56 ● 320 ● 450