Evaluation

1

JDeodorant:

Feature Envy, God Class, Long Method and Switch Statement (in its Type Checking variant) code smells

PMD:

Large Class, Long Method, Long Parameter List, and Duplicated Code smells and other potential problems like dead code, unused local variables (347 rules in total)

2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Long Parameter list | Long Method | God Class | Duplicate Code |
| JDeodorant | N/A | 0 | 57 |  |
| PMD | 4 | 11 | 42 |  |
| PyReflect | 4 | 0 (?) | 1 | 2 (d = 10) |

Long parameter list

JD: Don’t support

PMD (excessive parameter list 10): Nothing found

Change to #8: 4 results (position info)

*Methods with numerous parameters are a challenge to maintain, especially if most of them share the same datatype. These situations usually denote the need for new objects to wrap the numerous parameters.*

PyReflect: (lp=7)

Same result as PMD

Long method

JD: Nothing found

PMD (excessive method length 100):

*The NPath complexity of a method is the number of acyclic execution paths through that method.*

*Try to reduce the method length by creating helper methods and removing any copy/pasted code.*

PyReflect: (lm=100)

No lm found

God class

JD: 57

PMD: 42 in total (html)

*The God Class rule detects the God Class design flaw using metrics. God classes do too many things, are very big and overly complex. They should be split apart to be more object-oriented.*

Overlap: 20

JD: 35.1%

PMD: 47.6%

PyReflec:

*PMD: src/nanoxml/XMLElement.java:39: Possible God class (WMC=225, ATFD=12, TCC=0.08888888888888889)*

*PR: src/nanoxml/XMLElement.java: XMLElement God Class (WMC=58, ATFD=108, TCC=1007/2016)*