Code Climate and Drupal

by Joseph D. Purcell

Senior Web Developer at Digital Bridge

@josephdpurcell

What is static analysis?

What is static analysis?

Do you even continuous delivery!?

Inspecting code without execution.



GHESTBUSTERS

Great for bug detection!

- Unused variables or methods
- Access to globals (security risk!)
- Static calls (bad for testability!)
- "Dead" code



Great for understanding quality!

- Testability
 - Static calls
 - Complexity
- Adaptability
 - Coupling
 - Number of public methods
- Maintainability
 - Code style violations
 - Missing documentation
 - Complexity
 - Length of file, method, class
 - Copy and pasted code

- Compliance
 - Accessibility
- Performance
 - https://www.sitespeed.io/

What are Code Climate?

Code Climate is...

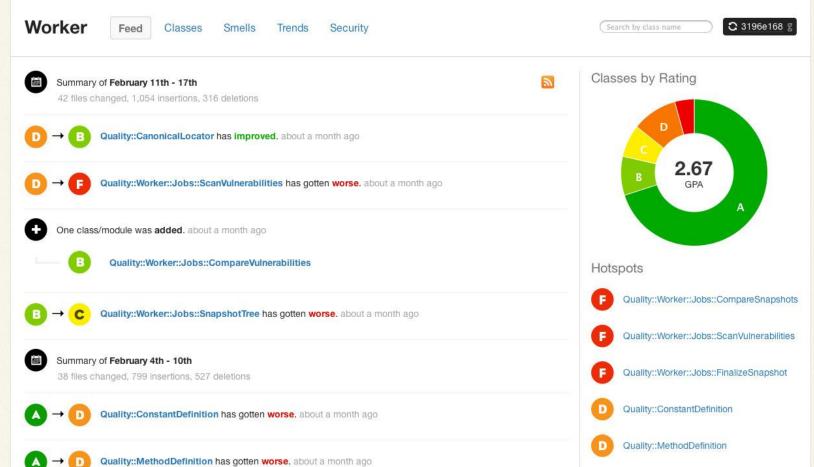
- Static analysis tool built on static analysis tools
 - https://docs.codeclimate.com/docs/list-of-engines
- Open source
- Free for open source projects
- A GPA that represents quality





Bryan H.

H.



What does this mean?

Code Climate can be used to...

- Audit tool for project quality
- Bug prevention tool
- Quality assurance tool

Predicting reactions to Code Climate...



WARNING!

SYSTEM MAY HAVE DETECTED VIRUSES ON YOUR COMPUTER

System May Have Found (2) Malicious Viruses: Rootkit.Sirefef.Spy and Trojan.FakeAV-Download. Your Personal & Financial Information MAY NOT BE SAFE.

For Help Removing Viruses, Call Tech Support Online Right Away:

1(855) 970-1892

(TOLL-FREE, High Priority Call Line)

Your IP Address: Generated on 02-18-2014 | Priority: Urgent



WELL THERE'S YOUR PROBLEM

Who's doing it?

 Microsoft and Linux have found static analysis to have a 58% correlation with user bug reports.

https://www.usenix.org/legacy/event/usenix09/tech/full_papers/guo/guo_html/index.html

- Golang's compiler does some static analysis out of the box (also go-fmt).
- Users of Code Climate:
 - JavaScript: Angular, Bootstrap, jQuery, d3, Node
 - o PHP: ownCloud, ReactPHP
 - 50k+ other projects https://codeclimate.com/oss

Why Drupal?

How many are frustrated by?

- Number of bug reports in core and modules... (~15k issues?)
- Lack of objective comparison of modules...
- Unstable and slow release cycles...
- Difficult to test code...
- Inability to unit test code...

Code Climate can help make Drupal better.

What are your thoughts?