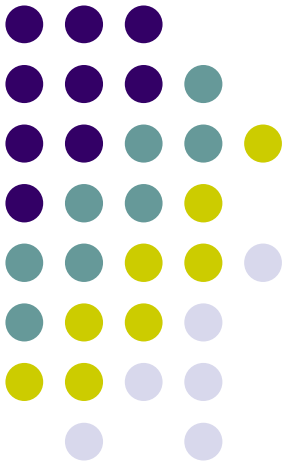
Static Program Analysis of JavaScript Cryptographic libraries

Click to add text



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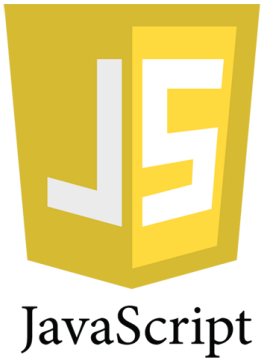
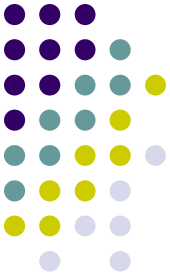
Good Cryptographic libraries

Too many cryptographic libraries available, which one to choose ?

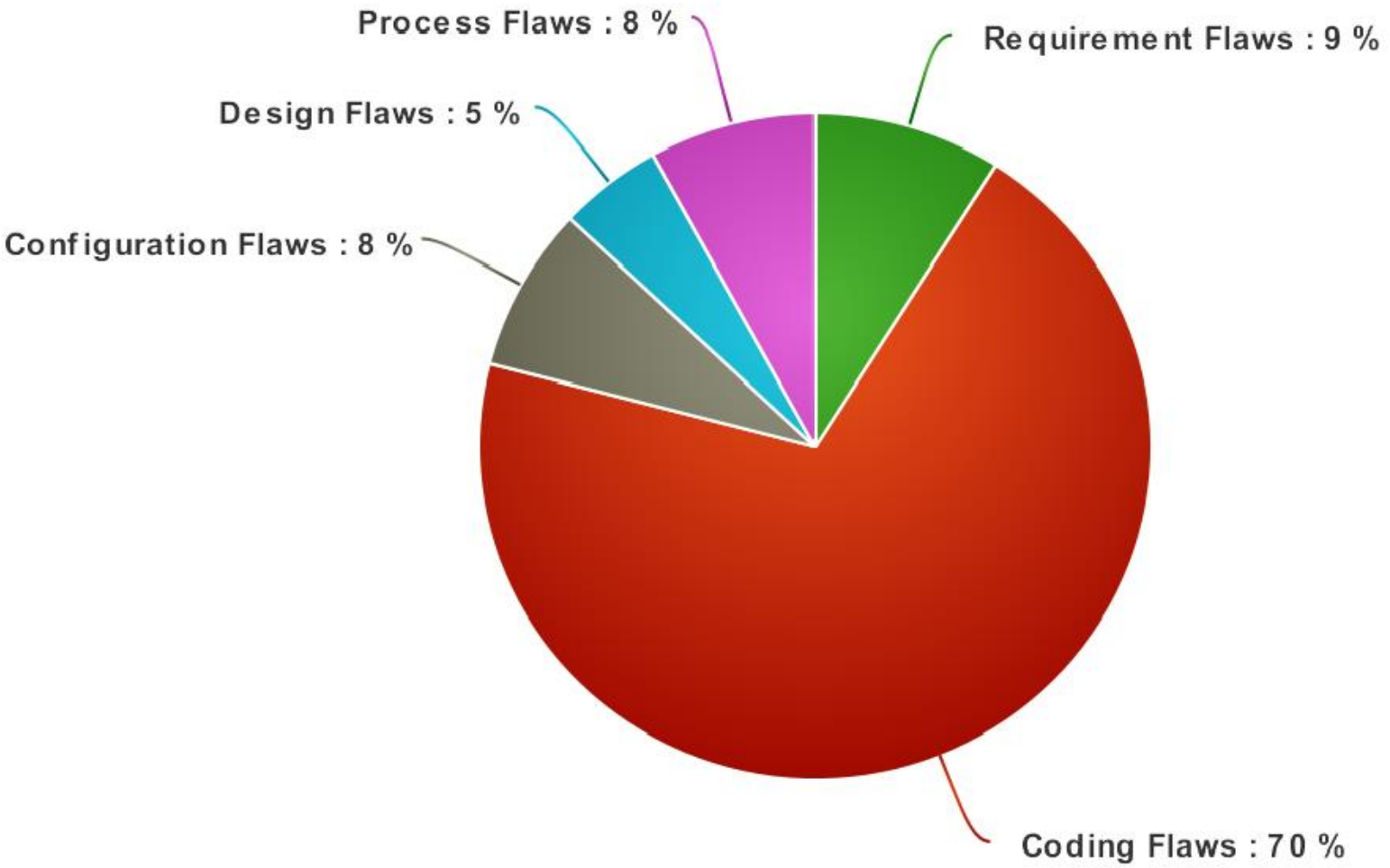
Increasing prominence of





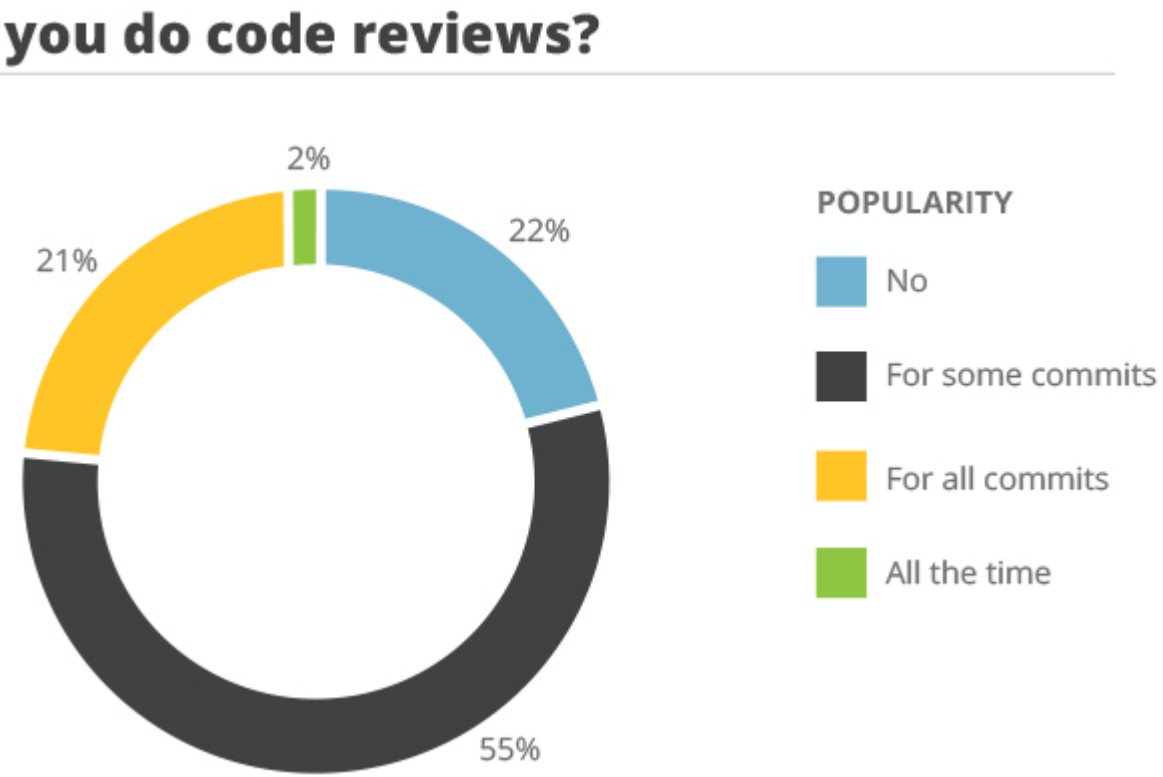
- Once a client-side scripting language has evolved into server-side code
- Object Oriented Design
- Prototyping language
- Most number of code submissions in famous code repositories

Software Issues



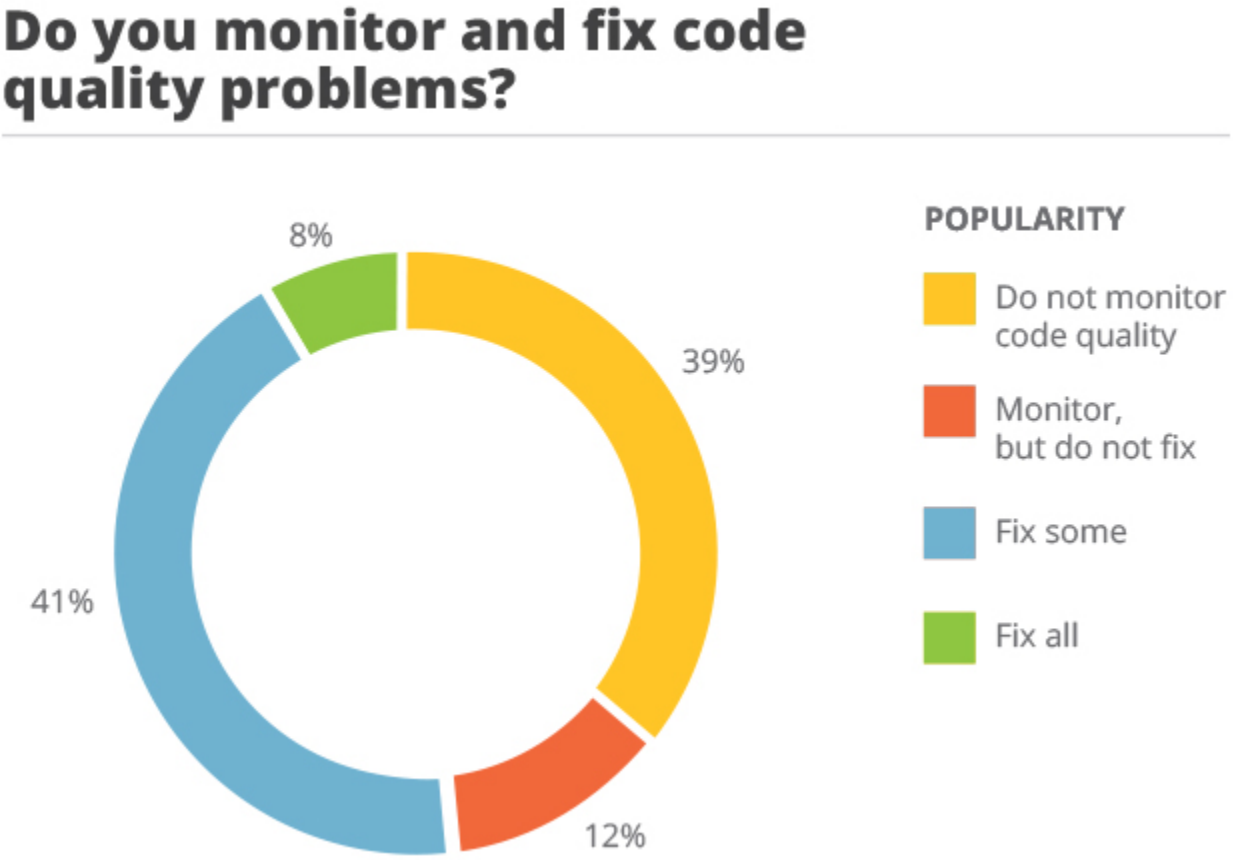
Source: Root Cause Analysis
http://csharpdeveloper.wordpress.com/2012/02/05/use-root-cause-analysis-to-get-to-defect-prevention-in-your-software-development-process

Coding practices



Source: Developer Productivity Report
https://zeroturnaround.com/rebellabs/developer-productivity-report-2013-how-engineering-tools-practices-impact-software-quality-delivery/6/

Coding practices



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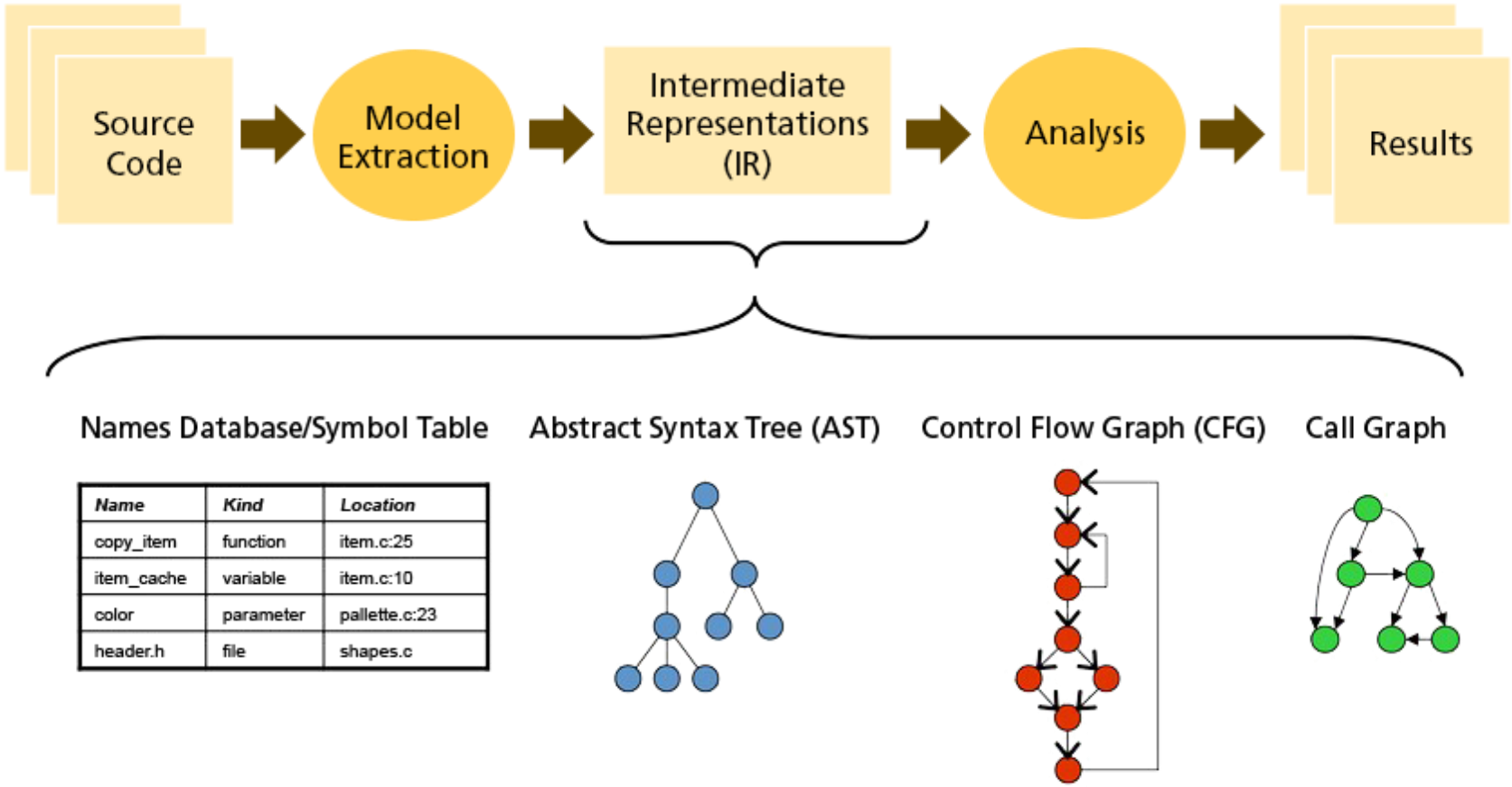
Static Program Analysis

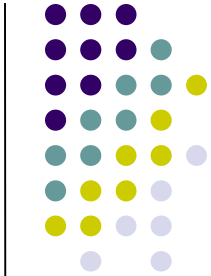


Name	*Kind*	*Location*
copy_item	function	item.c:25
item_cache	variable	item.c:10
color	parameter	pallette.c:23
header.h	file	shapes.c

Plato

- A JavaScript Static Analysis Report Generator
- Executes itself on a Node.js engine
- Installation:
  - npm install -g plato

Plato



- The interactive report comprises of:
  - Maintainability score
  - Lines of code
  - Estimated Error Count
  - Linter Error Count (JSHint and ESLint)
- To run the tool: *plato -r -d <output-dir> <input-dir>*
- Demo...

Thank you!