We're Sorry,
But Something Went Wrong

Aja Hammerly
Seattle.rb
We're sorry, but something went wrong.
Aja Hammerly
@thagomizer_rb
http://github.com/thagomizer
http://www.thagomizer.com

SUBSTANTIAL
Overview

- Beginner friendly
- Language agnostic
- No Code :-(
Debugging
Debugging

Now with 100% more SCIENCE!
Step 0: Known State
Step 1: Identify A Problem

Known State

Identify Problem

Make Hypothesis

Test Hypothesis

Fixed?

Yes

Refactor

Next Failure

No

Revert Changes
Focus Small
Think Layers
Step 2: Make A Hypothesis
Use Data
There are two types of people in this world:

Those who can extrapolate from incomplete data
Avoid Conjunctions
Step 3: Test Your Hypothesis
One Thing At A Time
One Thing At A Time
One Thing At A Time
Step 4: Is It Fixed?

1. Known State
2. Identify Problem
3. Make Hypothesis
4. Test Hypothesis
5. Fixed?
   - Yes: Refactor
   - No: Revert Changes
6. Next Failure
Continuous Testing
Step 5a: Refactor
Don't Lose Your Fix
Step 6a: Next Failure
Step 5b: Revert Changes
Step 6b: Try Again
Refine The Problem

Story about recent problem with Virtus' default being a singleton, refining the problem and writing tests helped.
Tools & Methods
Software
git bisect
$ git bisect start
$ git bisect bad HEAD
$ git bisect good c17ce7f

Bisecting: 8 revisions left to test after this

$ git bisect run rake test
People
Rubber Ducking

http://commons.wikimedia.org/wiki/File:Plastik_ördek.png
Ask For Help
Documentation
Issues & Bugs
Mailing Lists
Stack Overflow
Cognitive
Time Limit
Do Something Else
But it's not my fault...
Submit A Bug
Basic Bug

http://www.flickr.com/photos/malcolm_nq/8190984555
What I Did:

What happened:

What I expected:

Notes:
Polite Bug

http://www.flickr.com/photos/rbochet/7226107202
No Generalizations
Concise
Objective
Great Bug

http://www.flickr.com/photos/r20176r/4929443936
Minimal Repro Steps
Related Cases
A Failing Test
Provide A Patch
Feature Request
Don't Panic!
Recognize The *Real* Problem
Consensus

Think of a better word
Multiple Problems?
triage

noun
the process of determining the most important people or things from amongst a large number that require attention.

verb [with obj.]
assign degrees of urgency to (wounded or ill patients).
Stop The Bleeding
Rollback
Workaround
Feature Switch
Manual Hackery
Fix The Issue
Resources
Write A Test
Scientific Debugging
Two Pairs
Expectations
Improving Estimates
Communicate Often
In Writing
In Public
Predictably
Re-triage
Reflect
Solo
Team
5 Whys
Fact Based
Future Focused
Summary
Debug With Science
Don't Panic!
Communicate
Special Thanks

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Thank You