Ditch Your Bug-Tracking Tool

3 Solid Tactics
to
Minimize Bug Counts

Jerry Penner, Test Specialist Waterloo Hydrogeologic jpenner@waterloohydrogeologic.com

What We'll Cover

- Bugs Are a Costly Problem
- The Zero Defect Methodology
- 3 Tactics to Reduce Bug Counts
- Results

Bugs Are a Costly Problem

How Much Does a Bug Cost?

Finding & Logging: ½ hr \$25.00

Grooming: 5 mins, Team of 9 \$37.50

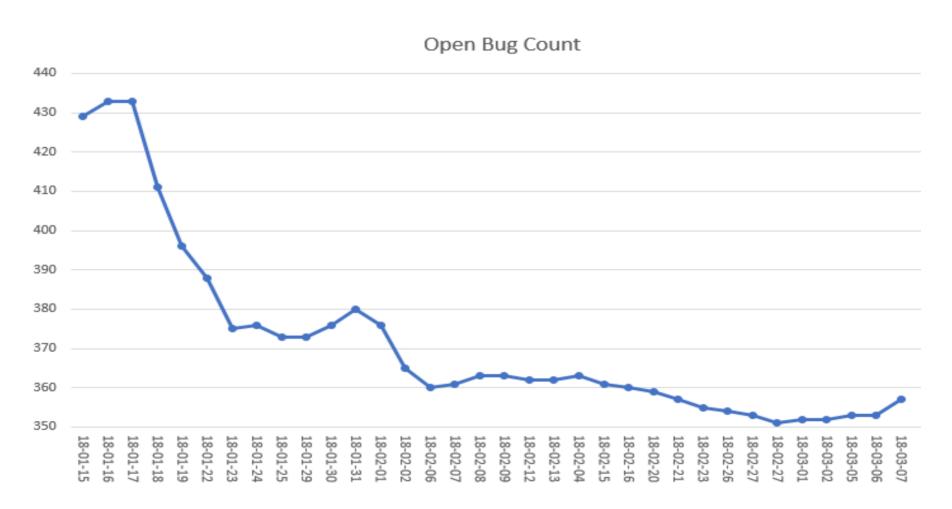
Dev Repair Time: 8 hrs \$400.00

Test Verify Time: 1 hr \$50.00

Total: 10.25 hours **\$512.50**

The Waste in Bugs

Dumpster Diving



Bugs Are a Costly Problem

Test: Can we fix this bug, please?

PM: "It's been open for more than 6 months and nobody's complained."

Test: "Then let's close it."

PM: "We can't close it, we might fix it."

Test: "Then let's fix it."

PM: "We have higher priorities to work on."

Test: "Then let's close it."

PM: "We can't close it, we might fix it."

Bugs Are a Costly Problem

"It's been open for more than 6 months and nobody's complained."

Total open bugs: 400

Total open bugs > 6 months old: 300 (75% of total)

Repair cost of bugs > 6 months old: \$153,750.00

Repair time of bugs > 6 months old: 1.5 person/years

The Zero Defect Methodology

- Developed by Augusto Evangelisti
- The Basics:



- Throw Away the Bug Tracking Tool & Bug Metrics
- All Bug Fixes >> All Other Development
- Fix Now / Fix Never
 - Dev/Test/PM Decision

Wait... what? Quit Logging Bugs?

A Gentler Approach

- Assume Good Intentions
- New Definition of Done

- Love Letters to Dev
- Call a Duck a Duck
- Fix Now / Tomorrow / Never

Love Letters to Dev

The Fundamental Reasoning Behind the Love Letter

Love Letter Key Points

- Inquiry, not accusatory.
- Follows active first-person action/result/problem format, but looser.
- Include what is helpful without overload.
 Dev can ask for more if they need it.
- Escalate to PM if necessary

Love Letter Sample

Subject: TC#1234 Question

Dear Dave Developer,

While executing TC#1234, at step #2 I found the Save As widget was missing in the File menu. It was there in yesterday's build.

Is this by oops or by design?

What am I missing?

Thanks,

Joe Tester

Love Letter Key Points

Key Phrases:

"Is this by oops or by design?"

"What am I missing?"

"Is this a quick fix or shall I log it?"

"I don't understand what I am seeing."

"Does this mean anything to you?"

Call a Duck a Duck

Bug:

"As a <role> when I do <sequence of events> I get <actual behaviour>. I should get <expected behaviour>."

Call a Duck a Duck

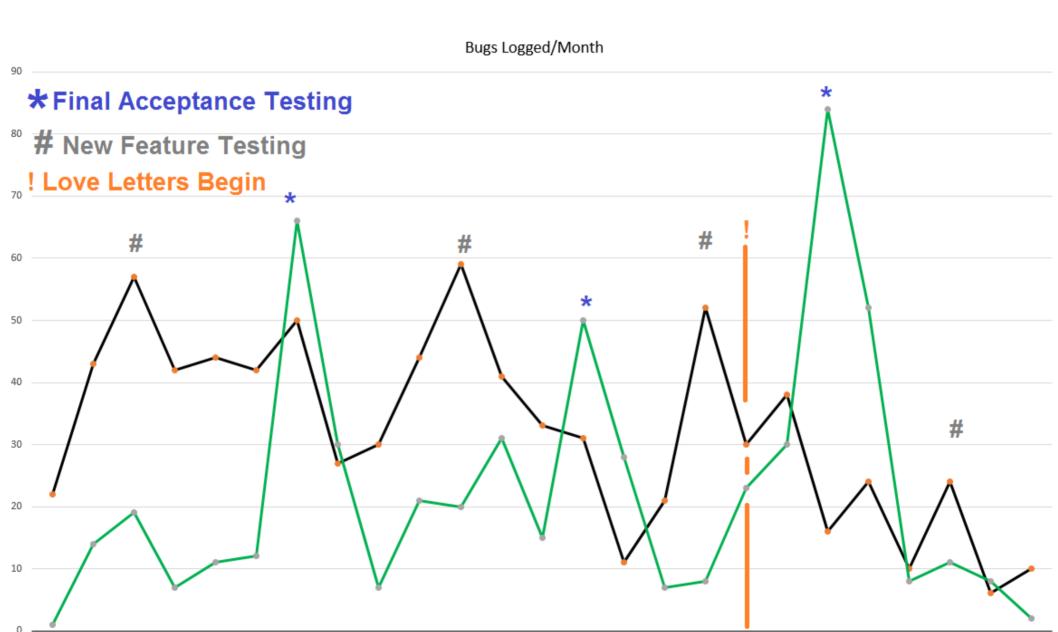
Feature:

"As a <role> I want <something> so that <ber> <ber> <ber> <ber
 <br

Fix Now / Tomorrow / Never

- Now = by EoD
- Tomorrow = Logged, Next Backlog
 Item
- Never = Logged as WNF, or a TC/Test
 Step

Results



Bug Tracker vs. Love Letter

	Bug Tracker		Love Letter	
	Hours	Dollars	Hours	Dollars
Find & Log	0.5	\$25	0.5	\$25
Grooming	0.75	\$37.5	0.0	\$0
Dev Repair	8	\$400	3	\$150
Test & Verify	1	\$50	0.5	\$25
Total:	10.25	\$512.50	4	\$200

Savings of \$312.50/bug X 26 bugs = \$8,125.00

Pros & Cons

- Cleaner, more meaningful metrics
- New features are delightful
- Rework is faster per feature
- Reduced duplicate bug logging

- Dead Letter Office
- Bus Factor
- Multiple Testers / Developers
- AWOL Team Members

Final Thoughts

- Start Small
- Adapt to Your Own Situation
- The Savings Are Real

References

- Augusto Evangelisti, father of the Zero Defect methodology: https://mysoftwarequality.wordpress.com/2016/10/17/u ltimate-guide-to-reducing-the-amount-of-defects-andother-waste-in-your-product/
- Effects of interrupting a programmer in The Zone: https://www.joelonsoftware.com/2000/04/19/where-do-these-people-get-their-unoriginal-ideas/
- The importance of flow in software development: https://link.springer.com/article/10.1007/s10270-017-0621-x

