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## WK3

Keynote
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# "Stop Guessing About How Customers Use Your Software"

**Presented by:**

**Alan Page**
**Microsoft**

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# Alan Page

A tester since 1993, **Alan Page** joined Microsoft in 1995 and currently is the Director of Test Excellence, where he oversees the technical training program for testers and other activities focused on improving testers, test tools, and testing across Microsoft. At Microsoft, Alan has worked on various versions of Windows, Internet Explorer, and Windows CE. He is the lead author of *How We Test Software at Microsoft*, writes about testing on his blog (blogs.msdn.com/alanpa/), and recently contributed a chapter to *Beautiful Testing*. Alan is a board member of the Seattle Area Software Quality Assurance Group (SASQAG) and speaks frequently about software testing and careers for software testers.
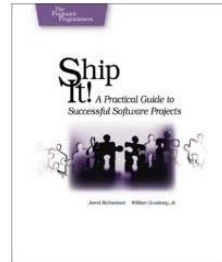
# Stop Guessing About How Customers Use Your Software

Alan Page

Test Architect

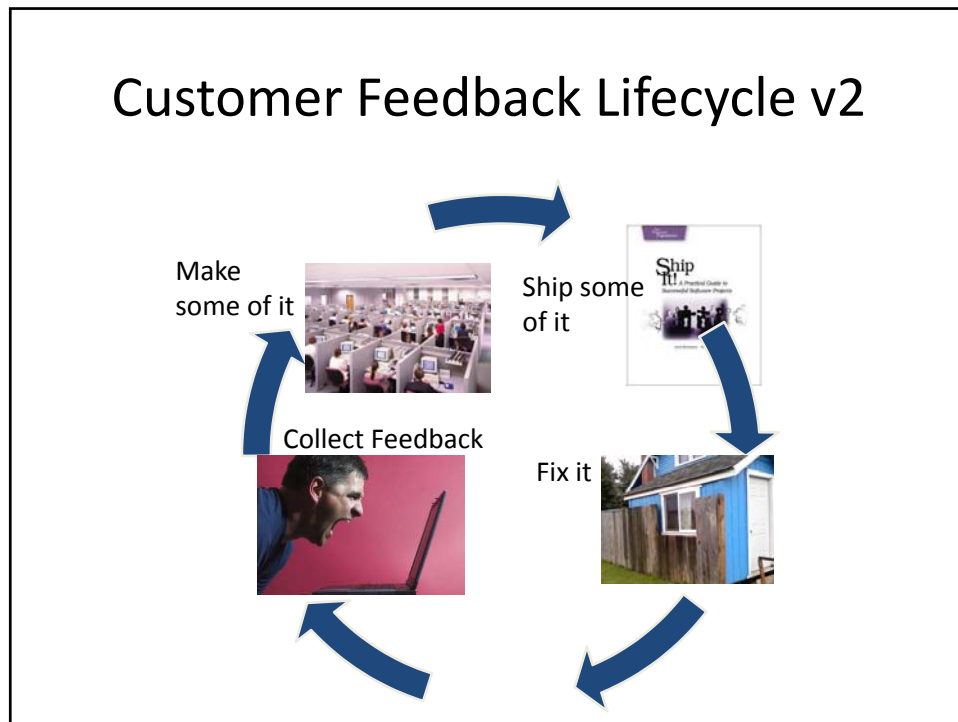Microsoft

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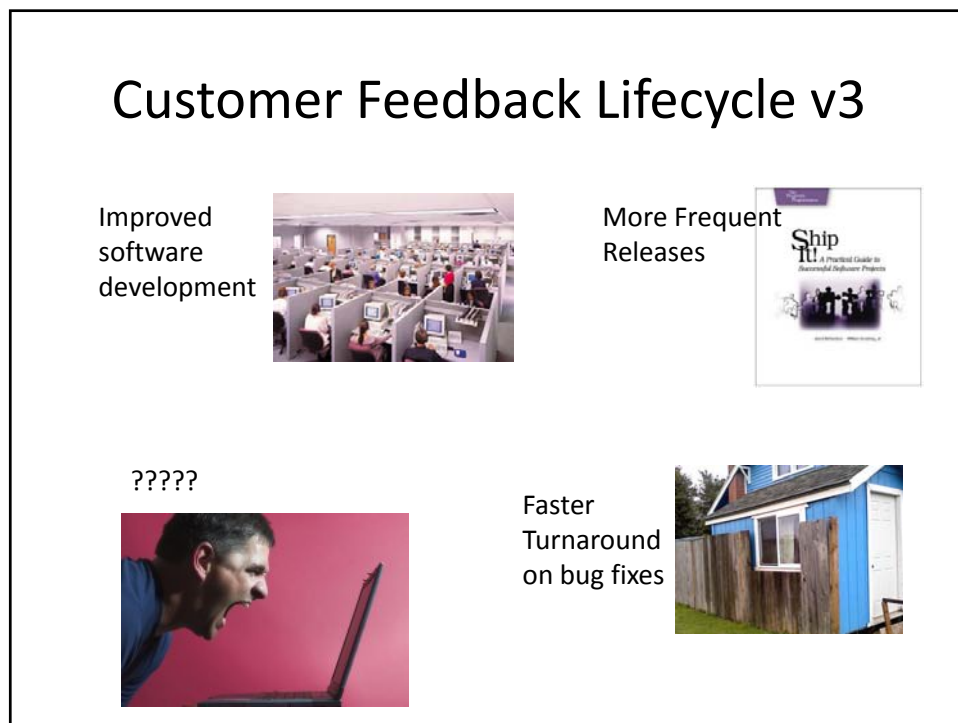# Customer Feedback Lifecycle v1

Make it



Ship it



Collect Feedback



Fix it

# Customer Feedback Lifecycle v2

Make some of it

Ship some of it

Collect Feedback

Fix it

# Customer Feedback Lifecycle v3

Improved software development

More Frequent Releases

?????

Faster Turnaround on bug fixes

# What are your users *really* thinking?

# Possible solutions:

- Include a human observer with every software download
- USB mood rings
- More Customer Data

# What we know

- Crash Data
- Verbatim Feedback
- Send-a-Smile
- Usage Data
- A/B Testing

# Usability Labs (use to lead int exp)
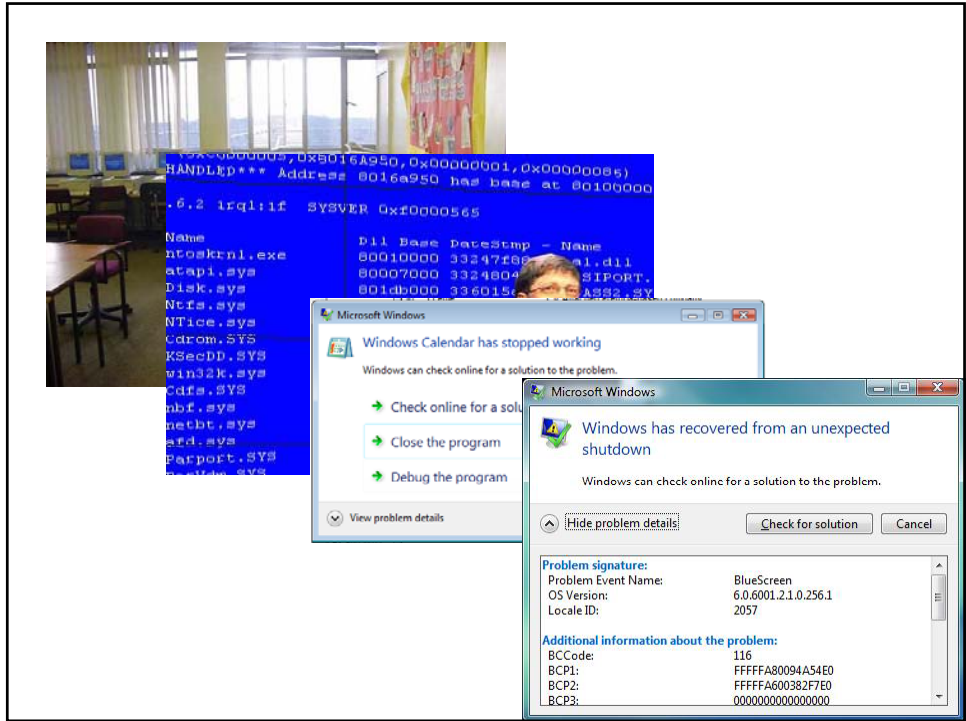
# Crash Data



What does this do?

# Crash Data
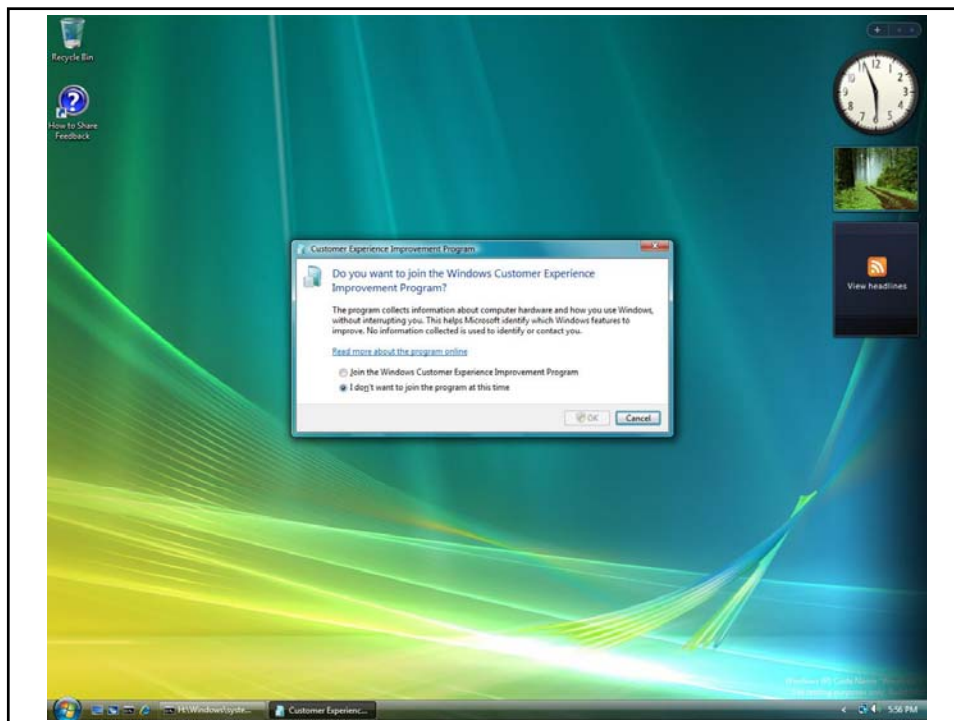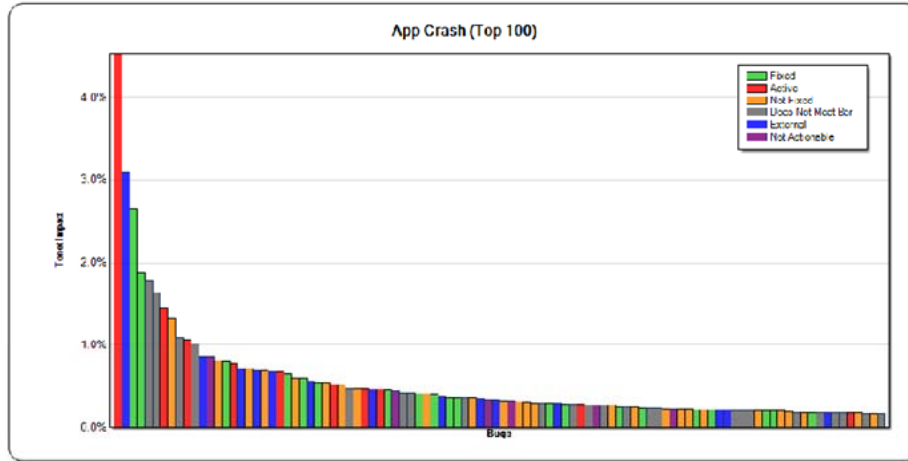
# Customer Improvement Experience Program (CEIP)

What: Platform service to help understand customer usage patterns.



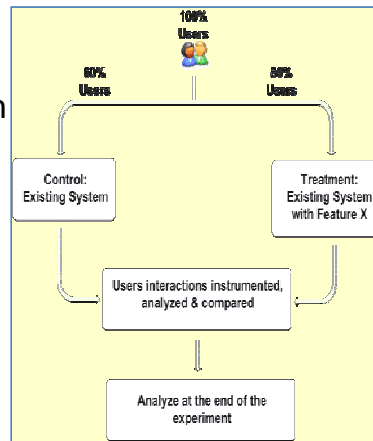# Example Data

# Feedback



# Send-a-Smile

Controlled Experiments in One Slide

17

- Concept is trivial
  - Randomly split traffic between two (or more) versions
    - A (Control)
    - B (Treatment)
  - Collect metrics of interest
  - Analyze

Best scientific way to prove causality, i.e., the changes in metrics are caused by changes introduced in the treatment(s)

Must run statistical tests to confirm differences are not due to chance

# Examples

- Three experiments that ran at Microsoft recently
- All had enough users for statistical validity
- Game: see how many you get right
  - Everyone please stand up
  - Three choices are:
    - A wins (the difference is statistically significant)
    - A and B are approximately the same (no stat sig diff)
    - B wins

# MSN Real Estate

- "Find a house" widget variations
- Overall Evaluation Criterion: Revenue to Microsoft generated every time a user clicks search/find button

A

B

- Raise your right hand if you think A Wins
- Raise your left hand if you think B Wins
- Don't raise your hand if you think they're about the same

# Office Online

Test new design for Office Online homepage
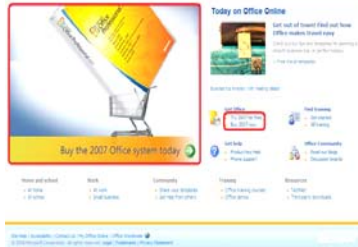
OEC: Clicks on revenue generating links (red below)

A

B

- Raise your right hand if you think A Wins
- Raise your left hand if you think B Wins
- Don't raise your hand if you think they're about the same
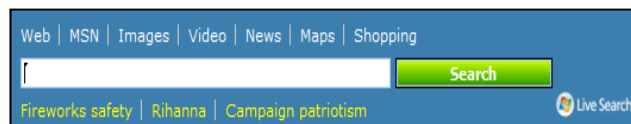
# MSN Home Page Search Box

OEC: Clickthrough rate for Search box and popular searches

A

B

Differences: A has taller search box (overall size is the same), has
  magnifying glass icon, "popular searches"
  B has big search button

- Raise your right hand if you think A Wins
- Raise your left hand if you think B Wins
- Don't raise your hand if they are the about the same

## US Search Box for Bing Launch

- For the launch of Bing, Microsoft's search engine, there was an effort to improve the search box on the MSN home page
- Control:



- Treatment:



- New version was statistically significantly better
- Small changes have big impact

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# What can you do?

Windows Error Reporting (WER)

Solicit feedback within your application

A/B Testing

Stop Guessing

# Resources

Windows Error Reporting
- http://www.microsoft.com/whdc/winlogo/maintain/StartWER.mspx

Experimentation Platform
- http://exp-platform.com/

My social stuff
- http://angryweasel.com/blog
- http://hwtsam.com/
- @alanpage (Twitter)