

Beneath, Between, and Behind the lines of Test Excellence at Microsoft

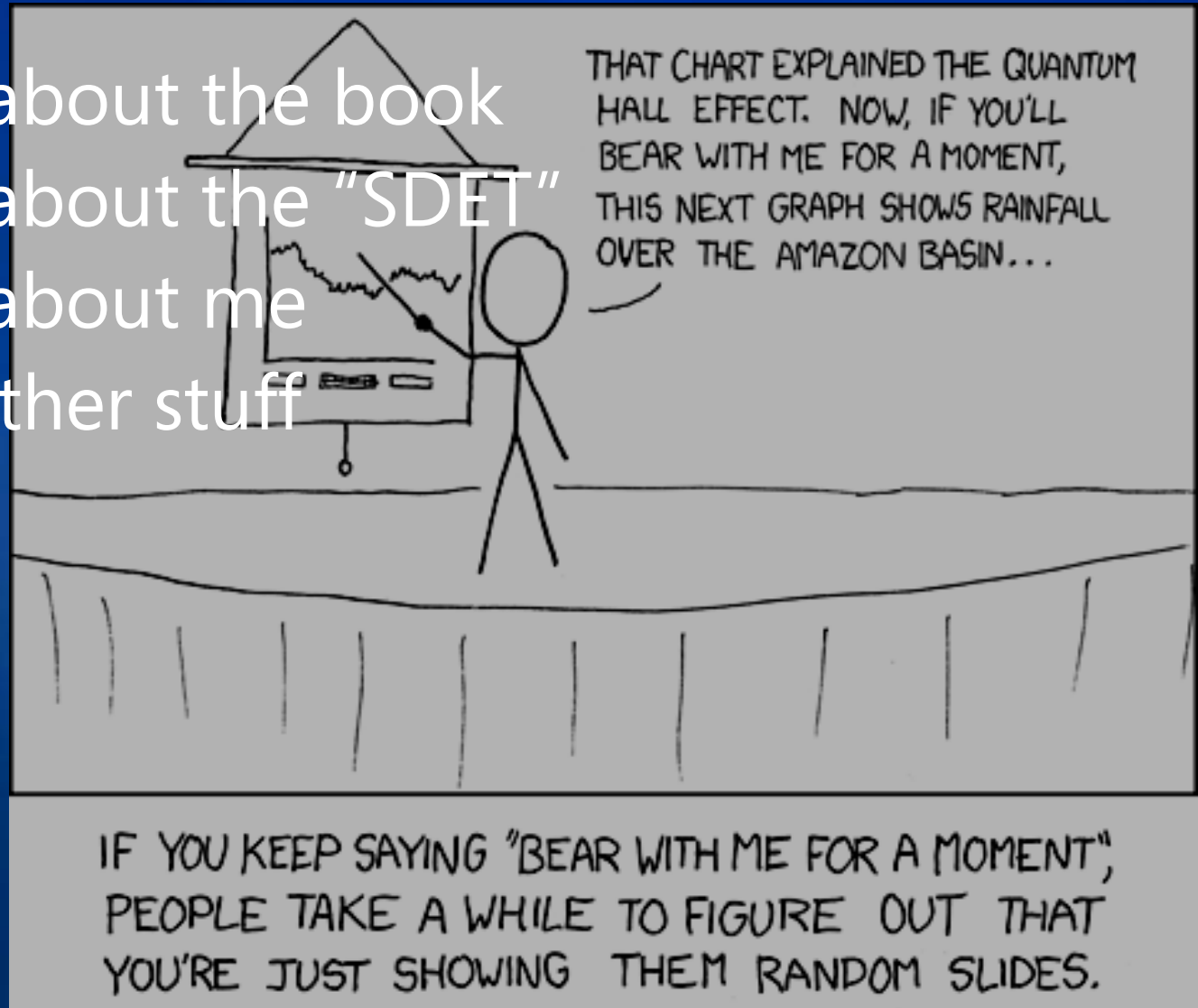
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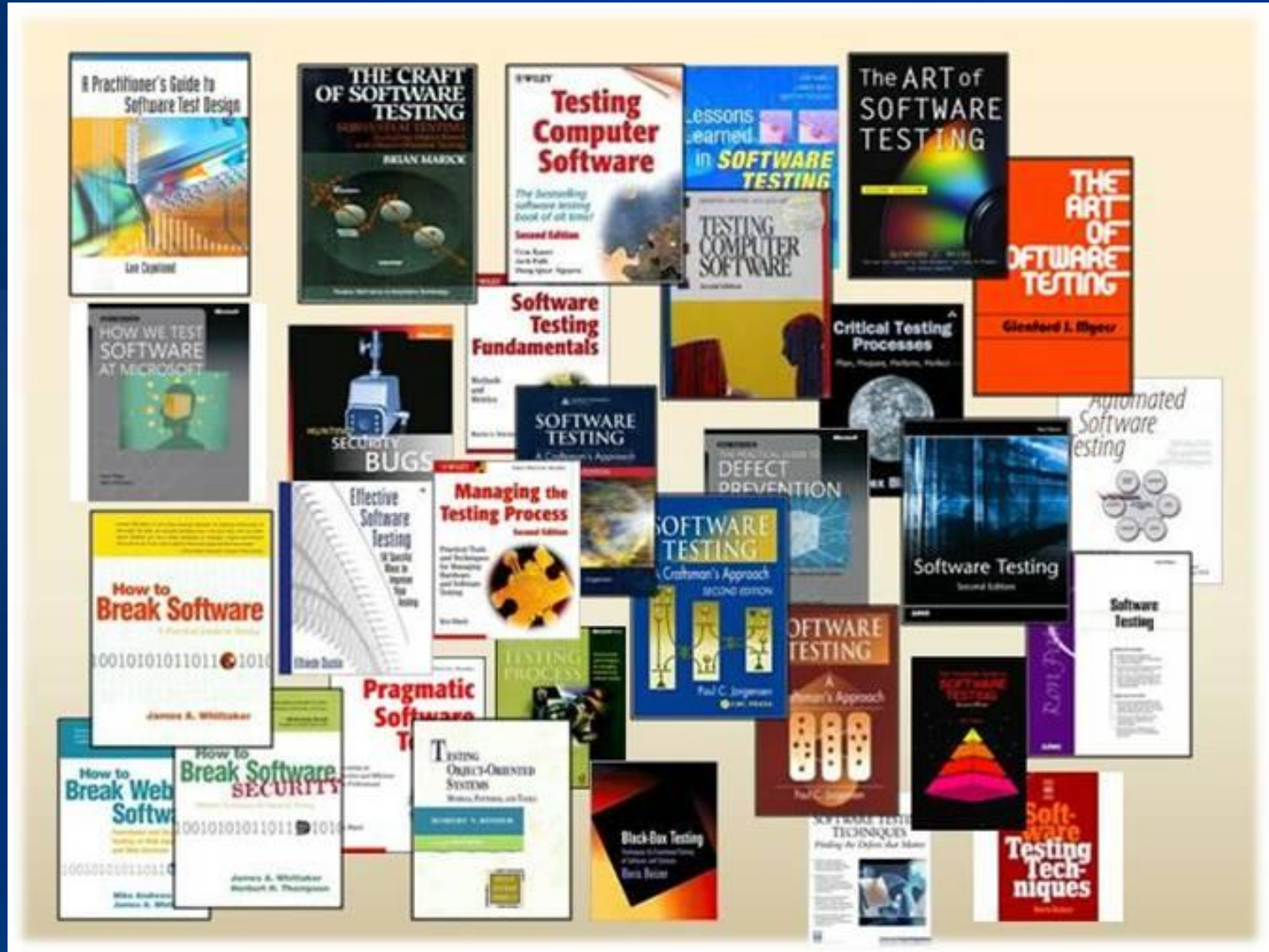


Agenda

- A little about the book
- A little about the "SDET"
- A little about me
- Some other stuff



Why *another* book about testing?



Microsoft Testers

- **Software Design Engineers in Test**
 - Testers (SDETs) can code, but systems knowledge and technical problem solving are the key attributes of testers at Microsoft
- **Ten-thousand testers**
 - Ratio of Developers to Testers is roughly 1:1
 - Everyone owns quality
 - almost...

Testing at Microsoft

My Story



Testing at Microsoft – the beginning

- First tester hired in 1979 (high school intern)
- First full-time tester hired in 1983
- Wave of tester hiring in 1985



Help Wanted ...

- “You will design, execute and document tests of application software”
- Requirements: background in math, computers, programming

programming

SOFTWARE TESTER

Microsoft's leadership in software dates to the advent of the microcomputer in 1974. With over two million installations, our first product, Microsoft BASIC, is the most widely used language in the world. As part of the Microsoft team, you will share our commitment to product development and technical excellence. We currently are seeking Software Testers to work on our newest applications software products.

As a Software Tester, you will design, execute and document tests of application software. You will generate test scripts and automatic test packages. This is a challenging and highly visible position within a fast growing division of Microsoft.

Requirements: background in math, computers, programming; preferably two years software test experience. Must be detail oriented, organized and have excellent written and oral skills.

Explore your future with Microsoft by sending a resume or letter that outlines your education, experience, and salary requirements to: Microsoft Corporation, Dept. ST, 10700 Northup Way, Box 97200, Bellevue, WA 98009. We are an equal opportunity employer.

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SDET Profile - 2009

- Mostly Computer Science Graduates & Industry Hires
- Also
 - Electrical Engineering
 - Math
 - Physics
 - Other Engineering
 - Other non-Engineering (Test Apprentice Program)
- We look for
 - Problem Decomposition Skills
 - Drive for Results
 - Passion for Quality
 - Programming Skills

So ...

“if Microsoft is so good at testing, why does your software suck?” 

What a question! I only wish I could convey the *way* that question is normally asked. The tone of voice is either partially apologetic (because many people remember that I was a major ask-er of that same question long before I became an ask-ee) or it's condescending to the point that I find myself smiling as I fantasize about the ask-er's computer blue-screening right before that crucial save. (Ok, so I took an extra hit of the kool-aid today. It was lime and I like lime.)

After 27 months on the inside I have a few insights. The first few are, I readily concede, downright defensive. But as I've come to experience firsthand, true

...from James Whittaker's blog

http://blogs.msdn.com/james_whittaker/archive/2008/08/11/if-microsoft-is-so-good-at-testing-why-does-your-software-suck.aspx

Some Numbers

- More than 90,000 Employees World Wide
- More than 38,000 Engineers
- Nearly 10,000 Testers
- Test to Developer Ratio – (roughly) 1:1

- Flagship projects have 10's of Millions of lines of code
- Millions of tests
- Nearly 15 Million entries into bug and project management tools every year

How do you get 10,000 testers to work together?

- Test Leadership Team
 - Senior test leaders of every product line
- Test Architect Group
 - Top technical contributors from across the company
- Engineering Excellence
 - Small central organization responsible for training, shared practices and more
 - Sharing, helping, communicating

Engineering Excellence

- Product-impartial senior engineers
- Technical Training
- Best Practices
- Common Tools
- Lightweight consulting
- Facilitation
- Communication

Shared Source & Tools

- Internal adaptation of codeplex.com
- Source control, issue tracking, and discussions are integrated
- Over 500 distinct projects

The screenshot shows the CodeBox website interface. At the top, the header includes the site name "CodeBox" and the tagline "Where shared development happens at Microsoft". A search bar is visible on the right. Below the header, there are several sections:

- New Projects:** A list of projects including "CCF AzMan Synchronization (NLB Environment)", "Genesys Console Hosted Control for CCF", "BuildTracker Web Service Client", "Virtual Earth Wrapper for Silverlight", and "MD Test Project".
- Latest Releases:** A list of releases for various projects, including "pWPhotoS 1.0 Beta - 6/2/2008", "Toolbox Project 1.8 Production - 5/31/2008", "SQLBeautifier 1.1 Production - 5/30/2008", and "Virtual Earth Wrapper for Silverlight 1.0 Alpha - 5/30/2008".
- About CodeBox:** A text block explaining that CodeBox is Microsoft's preferred internal shared development site, provided by Microsoft Engineering Excellence. It describes how users can create new shared source projects to collaborate with other engineers across Microsoft, join others who have already started their own projects, or use released projects and more.
- Popular Project Tags:** A section with a "List View" link, displaying various tags such as ".net", "@BlueSky", "@ccf", "@dxstudio", "@fse", "@Interopia", "@locHappy", "@MSIT", "@NMAPI", "@officelabs", "@TNT", "addin", "api", "testing", "automation", "bug tracking", "build", and "C#".

Questions / Links

- <http://blogs.msdn.com/alanpa>
- <http://www.hwtsam.com>

How We Test Software at Microsoft

