



IBM Software Group

Are you testing like a customer?

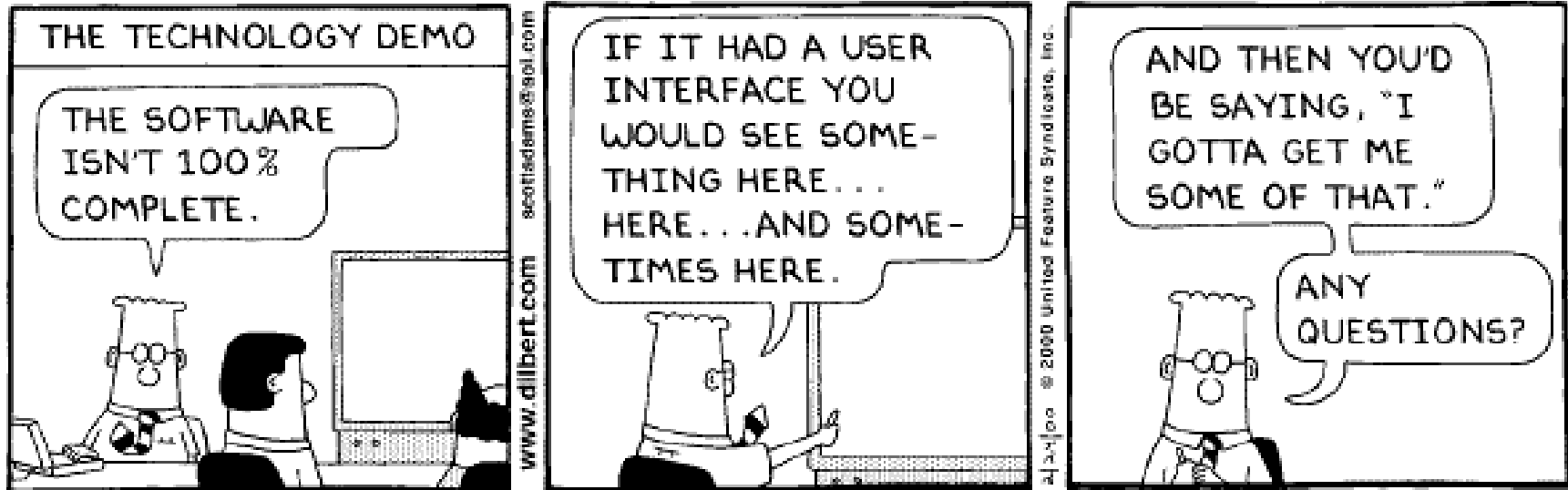
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Rational. software



@business on demand software

Customers – what do they want now?



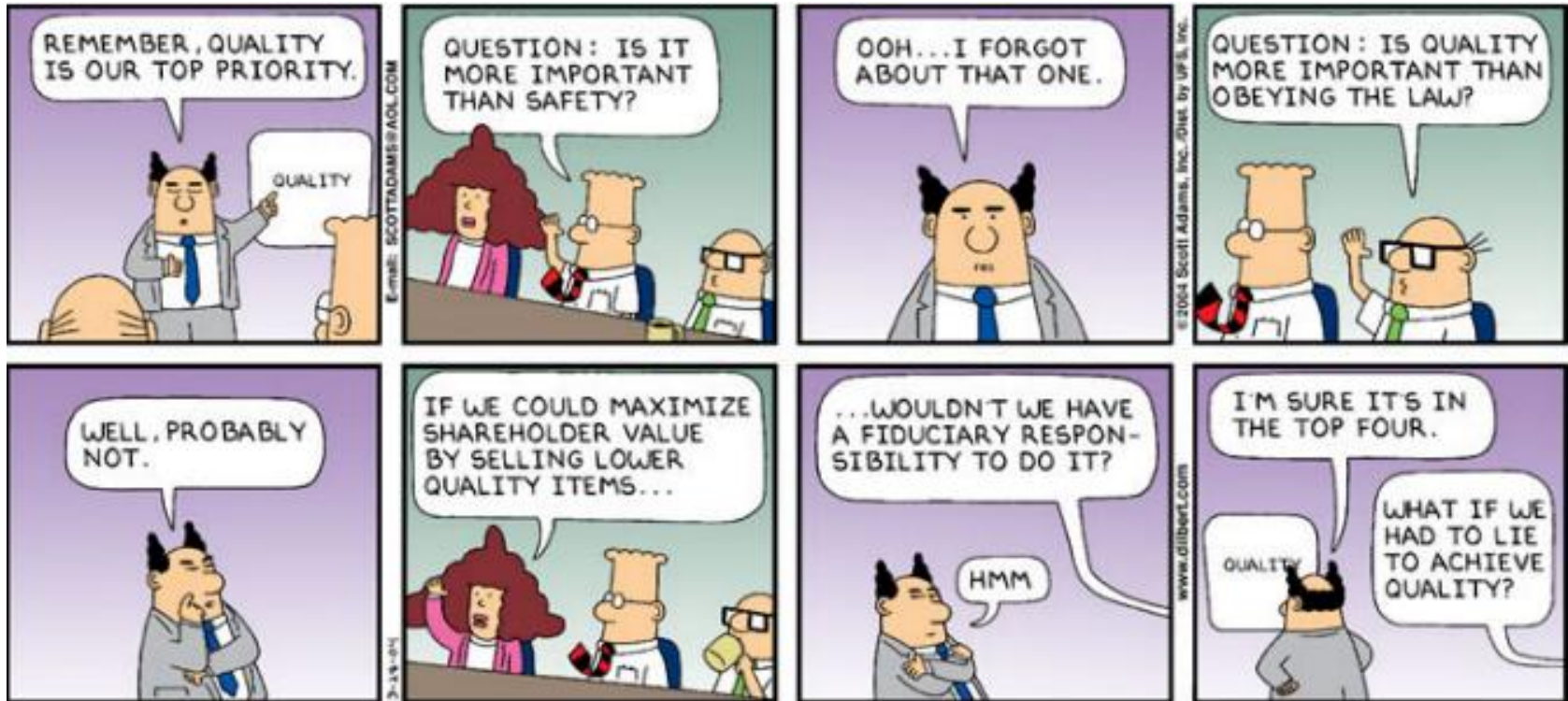
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Customers don't want their money back, they want a product that works properly.

- Dan Burton (United States House of Representatives)



How do you improve quality?



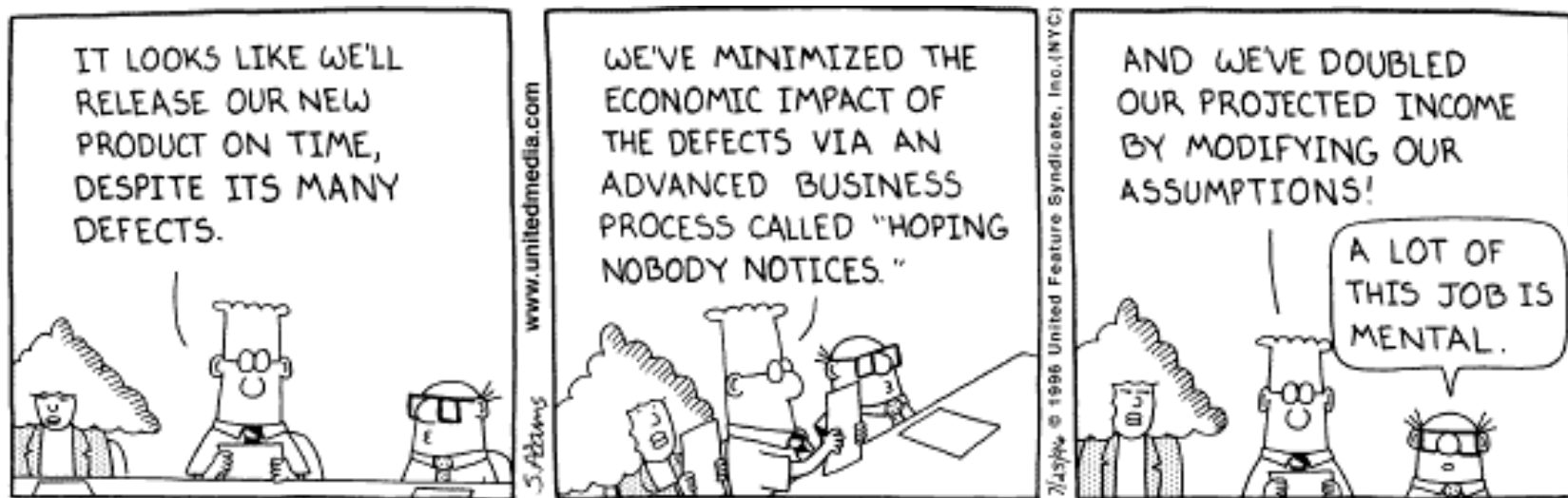
Test early, test often

- Unit testing
- Functional testing
- Regression testing
- Testing with check-in suites
- Model based testing
- Pair wise testing
- Exploratory testing
- Code coverage
- Complexity metrics
- Manually testing
- Automation testing
- Performance and load testing
- Usability testing
- ... and so on



Test team focus areas

- Requirements gathering
- Metrics such as number of unit and functional tests created, code coverage, etc.
- Test automation
- Testing early and throughout the software development life-cycle (from requirements to design to development to test to production)



Challenge: Customer environments are getting complex

- Geographically distributed
- Several platforms – Windows, Unix, Mainframe, Real-time, etc.
- Several clients – from desktop to mobile phones to other embedded apps
- Security and auditing procedures



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Outsourcing: Theory and Practice, Dilbert-Style



Solution: customer-focused testing activities

Test Areas	Detailed Description
Comprehensive Test Plan (CTP)	The CTP is a fully documented test plan covering all areas of testing. The test team will be responsible for creating the document with input from development to cover the plans they are responsible for.
Serviceability	Validate the product can be serviced, includes all aspects of problem determination, support, etc.
Scenario testing	Validate the functional completeness (from an end-to-end "fit for use" perspective - can the customer do what they need to do?) utilizing customer-based scenarios. Mandates the use of all corresponding documentation. Includes upgrade, cross revision and migration situations.
Consumability Test	Validate the consumability attributes and determines the corresponding score.
SVT	Validate the system's compliance with its specifications on a complete, integrated system in a production-like environment to successfully demonstrate its ability to support a successful end-to-end technology and/or business scenario. Includes testing for reliability, availability and usability. Regression testing is considered a part of SVT.
Scalability and Deployment Test	Validate the system can be deployed to all required environments and that it can be scaled to satisfy the document system requirements.
Integration Test	Validate the system interoperates correctly with other products and systems where integration points exists.
System Performance Test	Validate the product's performance meets the system specifications.



What is System Verification Testing?

✓ Final Gate For
Readiness And Shipping
Decision

✓ Customer-Centric End-
to-end Scenario Testing

✓ Examines The Entire
Product Under Realistic
Conditions

✓ Final Testing Activities
That Follow FVT Phase

✓ Assessment Based On
CUPRIMDSO Model



Capability (function)

Ability to meet business need/requirement and satisfy customers

Usability

Attributes of and offering that allows customers to interact with that offering based on skill level

Performance

The degree to which a system or component accomplishes its designated function within a given constraint

Reliability

Impact of failures, malfunctions, errors and other defect related problems encountered by customers

Installability

Software can be installed without error within defined specs and required configuration performance

Maintainability

Customers ability to remain productive while keeping product current

Documentation

Written description of product functionality and use based on skill level and role

Serviceability

Impact of fix management on customers including problem determination, first failure data capture, fix delivery and installation

Overall satisfaction

Considers all aspects of User Experience



Solution testing (Green threads testing)

- Drive scenarios from a customer's perspective by leveraging the common usage flows and by analyzing cross product end to end usage patterns and environments.



What is a Green Thread?

- End-to-end workflow a customer might follow to accomplish a particular goal or handle a specific situation/event
- Reflects real-world usage and scenarios
- Demonstrates an optimal workflow (i.e. successful outcome to the set of tasks, with minimal frustration or setbacks)
 - Phase 1: Document the “As Is” flow
 - Phase 2: Define a “To Be” flow
- Emphasizes solutions
 - Solutions span process, services, other brands and even partners
 - Point products will not drive revenue growth
- NOT a complete or exhaustive list of all tasks or workflows for product(s)



Green Threads....contd

"For most companies, the [future of commercial software] belongs to those who know how to make the richest chocolate sauce, the sweetest, lightest whipped cream, and the juiciest cherries to sit on top, or how to put them all together into a sundae... There is no future in vanilla..." – Thomas L. Friedman, *The World is Flat*

- Goals
 - ▶ Move beyond point product thinking
 - ▶ Deliver solutions that really work to solve real-world customer problems
 - ▶ Identify and prioritize key issues and roadblocks to product development
 - ▶ Provide guidance and recommendations for field to use *now*
 - ▶ Try to match green threads to company market strategy (solutions & segments)
- Scope
 - ▶ Multiple green threads, each with a different focus
 - ▶ Continuously updated for new product releases
 - ▶ Each GT reflects a specific usage scenario, not all possible scenarios



Customer Related SVT Activities - Residency Program

Principle: In SVT, the tester must be an advocate for the client and make sure that the product can be implemented, operated, and managed seamlessly in a client production enterprise.

- Customer testing
- User Assistance testing
- Tech Support testing
- Product real-usage-flow testing
- What are the success criteria for residency programs?
 - ▶ Successful transplant of data into test labs and test plans
 - ▶ Actual customer test cases being run in test labs
 - ▶ Successful implant of products and processes into test plans
 - ▶ Regularly Scheduled customer visits to test lab (and vice versa)



Thank
YOU

