

Early Testing Without the “Test and Test Again” Syndrome

Douglas Hoffman

BACS, MSEE, MBA, ASQ-CQMgr, ASQ-CSQE, ASQ Fellow
Software Quality Methods, LLC.
24646 Heather Heights Place
Saratoga, California 95070-9710
Phone 408-741-4830
Fax 408-867-4550
doug.hoffman@acm.org

Key points attendees take away:

- What the “Test and Test Again” syndrome is
- The issues with it
- How to know when it is happening to you
- Techniques for breaking out of the cycle
- Methods of providing good feedback without getting into the cycle

Abstract:

We usually begin running tests on new software while it is still being written. We frequently begin testing of systems before they’re complete. We do this for a variety of good reasons. Frequently, early testing is difficult and time consuming because not everything is going to work and we must differentiate between “it’s not ready” and “it’s broken.” A lot of extra work can go into investigating and documenting these early software characteristics.

Early testing can lead to situations where a test team gets into a “test and test again” cycle. This is a situation where the testers and developers get into a dance where the developers provide product for test, the testers run and document their findings, the developers fix the problems and release it for testing, and the testers then rerun and document their new findings. This pattern cycles over and over, with the product slowly gaining features and stability toward its eventual release.

The testers in this case are working full tilt; running tests, investigating and isolating faults, writing up defects, rerunning the tests, and verifying fixes. As time goes on, the testing evolves from one feature to another until finally all the features are complete. There are problems with this approach because a lot of time is wasted on problems the developers know about, features do not get tested deeply, little time is available for test planning, and they are frequently exhausted when the product is really ready for in depth testing.

Sometimes, the test team becomes consumed with running these early tests to the exclusion of more in depth test planning and tool building. In extreme cases, I have observed test teams that start testing very early and find themselves in a perpetual mode of running and rerunning a set of tests created when each feature is released. This talk will address the following questions:

1. What is “test and test again?”
2. What does it cost us?
3. How does it happen?
4. What can we do about it?
5. How can it be avoided?

Experience and qualifications:

Douglas Hoffman has over thirty years experience in software quality assurance and has earned degrees in Computer Science, Electrical Engineering, and an MBA. He was among the first to earn a Certificate from ASQ in Software Quality Engineering (ASQ-CSQE), has been certified in quality management (ASQ-CQMgr), and is an ASQ Fellow. He is a Founding Member and a current Director of the Association for Software Testing. He has been a participant at dozens of software quality conferences and Program Chairman for several international conferences on software quality. He is Vice President, Test Transformation Services, where he leads organizational assessments, teaches courses, and consults in strategic and tactical planning for software development and software testing. He is active as a Fellow of the ASQ, participating in the Silicon Valley Section, Software Division, and the Software Quality Task Group (SSQA), and is also a member of the ACM and IEEE. He is current Auditor and Past Chairman of the SSQA and is the Immediate Past Chairman of the Silicon Valley Section of the ASQ.