Building Effective Global Software Test Teams through Training

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Abstract

Software testing is part art, part science and a unique facet of software development. How to test software is not taught well in most places, especially considering the differences between software developers and software testers. Getting useful information from the test team is key to effective project management. In global teams, testing can quickly become ineffective and a problem. Effective training for your offshore test team is critical to your organization's success. The objective of this tutorial is to:
- use training to solve technical and management issues
- anticipate cultural and organizational issues unique to software testing
- use best-practice training for staff retention
- minimize stress and late-night meetings
- ensure that you get the right information from the offshore team

1. Introduction

Software testing is an important part of software development yet it is often misunderstood, even at the home office. Distributed development gives more opportunity for problems in testing: offshore teams having no knowledge of testing, no understanding of the end-users, testing only from a developer’s perspective and not from a user’s perspective, as well as many cultural and management issues. These varieties of people, process and practice (methods and tool use) problems will put in jeopardy many test efforts but particularly make more rapid or agile development impossible. Training the offshore test team in not only current software test methods but a full range of topics is the solution for Project Managers, Program Managers, Development and Test Managers as well as anyone building a global organization or outsourcing their test work.

2. Definition of Areas for Training

Before training offshore testers can begin there is work to do defining the need. This starts with analyzing the skill set of the test team and the needs of the product development team. Understanding there are three major areas of skills needed for testing: domain knowledge, QA/test expertise, technical/platform knowledge, you can begin building training in each area. Considerations of differing understandings of Quality as well as educational reference will be discussed in this tutorial.

3. Get your House in Order – Internal Processes

Strong emphasis must be placed on standardizing and documenting your software development and testing process before a training program can be developed. This includes building and documenting file transfer protocols and controls, communication methods, and setting execution expectations. Using this process to assure project success is discussed in detail.

4. Communication, Communication and Communication

Communication problems can easily derail even the best processes and tools. While these problems are well-known we will examine the role of training to mitigate communication problems, setting communication expectations and managing against the goals laid out in training. We will examine the roots of poor communication and look at ways training can increase awareness of problem areas as the first step to fix them.
5. The Training Material

Training an offshore team is not like training the team at home. In addition to possible language issues there are cultural and content delivery mechanics that will be discussed to set yourself up for success. Ideas will be presented for additional benefits such as increasing staff retention and minimizing retraining time.

6. Tutorial Organization

The tutorial includes lecture and real world examples from working with teams in many of the most common offshoring locations. It also includes a cross cultural communication training case study.

7. Presenter

Michael Hackett, Vice President of Training, Consulting and Publications, is a founding partner of LogiGear Corporation. He has almost two decades of experience in software engineering and the testing of shrink-wrap, client/server and web-based applications in Banking, Securities, Healthcare and Consumer Electronics.

Michael has helped well-known companies including Palm Computing, Oracle, CNET, Electronics for Imaging, Adobe Systems, The Learning Company, and The Well produce, test and release applications ranging from business productivity to educational multimedia titles - in English as well as a multitude of other languages.


He currently sits on the Board of Advisors and teaches for the Certificate in Software Quality Engineering and Management at University of California at Santa Cruz Extension. Michael's training has brought Silicon Valley testing expertise to 10 countries. He holds a Bachelor of Science in Engineering from Carnegie Mellon University.

8. Tutorial level

This introductory level tutorial is for professionals who are interested in using training for QA/test teams on distributed software development projects to improve project success.

9. Attendee background

Familiarity with software testing or with offshore team hiring, technology transfer or staff development is required.