

Quality Assurance Process

Quality assurance and control is always one of the top priorities in software development life cycle. It becomes even more important for offshore development project. We always strive to achieve and maintain the highest standards of quality. VSC has been certified with ISO9001 : 2000, and is undergoing CMM level 3 assessment process. VSC has a set of strict rules for quality assurance and control, and creates a QA team formed by quality assurance specialists. We start our quality control activities from the beginning phase of the project. The following workflow presents partial descriptions about how we conduct and monitor quality assurance and control in software development life cycle. Our QA process involves our team and our clients to ensure that we keep active communication channels with our clients.

1. Phase of Requirements Analysis

- (i) Generate and review System Requirements Specification (SRS) and acceptance criteria
- (ii) Review SRS and remove defects.

2. Design Phase (Initial Design Phase and Detailed Design Phase)

- (i) Generate and evaluate “Design Specifications”
- (ii) Review Design Specifications and remove defects.

3. Implementation Phase and Unit Test

- (i) Strictly follow the programming standards imposed by company’s policies; strictly follow the specifications to implement and test every program and function.
- (ii) Evaluate every single test plan and test program, and make necessary changes based on evaluation.
- (iii) Execute unit tests, record defects and problems in any unit test; fix defects that are reported from testers. This process shall be repeated until defects are completely removed.
- (iv) Summarize a complete report after all unit tests are passed; evaluate the test results; explore any potential problems.
- (v) Submit source code and test report to client; immediately respond to client’s questions and requests.

4. Integration Test Phase

- (i) Strictly follow the specifications to design and develop integration tests.
- (ii) Evaluate integration test plan and test program; make necessary changes based on the evaluation.
- (iii) Submit integration test plan to customer for verification and confirmation.
- (iv) Implement integration test.
- (v) Submit functions and programs for integration test to client for verification and

confirmation.

- (vi) Execute integration test using customer's software and hardware environment or simulated environment; record defects in this test process.
- (vii) Modify source code based on test results; execute integration test repeatedly until integration test is passed.
- (viii) Submit test results for integration test to client; immediately respond to client's questions and requests.

5. System Test

System test process has the similar process to integration test process, except that the test programs and functions are designated for system testing.

6. Acceptance Test

Under most circumstances, we have our client to test the system before it is released to the target audience. This ensures that the software achieves the business targets.