

# QA & Test Process Improvement



# **“Comprehensive assessment, process improvement and implementation services that assure maximum efficiency of software development, with measurable results.”**

Software has established itself as THE competitive factor in today’s business environment. Surprisingly, few companies manage software production with the degree of care necessary to assure the value of the software they create. Whether you develop software for commercial use or rely on it to manage critical aspects of your own business, problems with production software can result in huge losses to revenue, profit and market share. Questcon maximizes the value of software, by assuring its development is done right. Since 1991, Questcon has helped companies change the way they develop software. Change that creates better results, faster production cycles, and lower development and maintenance costs.

## **Error Cost and Early Detection**

Simply stated, the cost of errors increases exponentially the longer it survives through the development process. Questcon is an expert in finding hidden inefficiencies in software development processes, by employing a pre-emptive approach to finding defects.

## **Assured Success**

We find many companies have well defined processes but fail to enforce them or lack the same due diligence in their testing. Others have poorly defined or even undocumented processes. Assured success doesn’t come from doing a few things right, it comes from doing all the right things right. Questcon knows proper balance and consistency are hallmarks of continuous success. And we know how to achieve them.

## **Perpetual Value**

Questcon brings the client’s people into the project to learn from our experience and methodologies. Over time, we mentor these same people as they move into subsequent projects, upgrading their skills and results so that they and the company continue to benefit long after the project is finished.

## **Questcon Accelerated QA & Test Process Improvement Service**

### ***-step 1-* QA & Test Assessment**

Most projects that fail do so before they are ever deployed. A Quality Assurance Assessment gives an independent view of how effective your development processes are. A Test Assessment will increase your efficiency and effectiveness of testing allowing you to capture the defects that matter most, yielding the greatest savings.

Built on a foundation of time proven practices, our QA & Test Assessment will greatly improve the way you develop software. Our Cost Benefit Analysis will identify, prioritize and justify the best process changes for your specific needs. You’ll clearly understand your options and have the return on investment data necessary to move forward.

### ***-step 2-* Improvement Planning**

Upon completing the assessment, Questcon develops a comprehensive improvement plan, clearly identifying the precise steps, best practices and methodologies that will be leveraged in optimizing the client’s development and business processes. Our plan will assure the greatest overall benefit with the promise of minimal disruption to the ongoing business at hand.

### ***-step 3-* Jump-start Training**

In order to accelerate deployment of the improvement process, we believe it is crucial to get everyone in the organization on the same page, properly aligned and prepared. To do so, Questcon creates and delivers a custom client-tailored education plan for process improvement.

**-Step 4-  
Process Improvement**

Process Improvement is the key to effective and efficient software development. Questcon assures the right processes are properly installed and maintained, resulting in perpetual benefits for our clients. The Accelerated Improvement service includes:

QA Management Best Practices

Only a very small percentage of software projects arrive on budget, on time. The odds are stacked heavily against you. Questcon has built the most comprehensive set of QA Best Practices in the industry. Practices that deliver immediate results and perpetual value. Let the mistakes of others drive your success.

QA Methodology

Simply put, a software QA methodology is the set of rules and practices used to create superb programs. The right methodology assures the software does what it's supposed to do, in the most efficient manner. Questcon can assure the best methodologies, based on a proven process we've used successfully over countless projects.

Test Measurement & Metrics

Software test metrics are the only objective means to determine process effectiveness. Many organizations waste time and money tracking the wrong metrics. Questcon defines which key software development processes can be objectively measured and develops a plan for the base information to be tracked, who will track it and when.

**-step 5-  
Implementation & Consulting**

Planning what to do and how to do it is important. Implementing correctly is everything. Let our experts not only help you develop the most effective game plan but make it happen as well. Questcon has vast experience implementing a wide range of projects with very successful results. Still not sure? Ask our clients.

Optional: Software Configuration Management

Our Software Configuration Management service delivers a phased plan that establishes a client-centric standard for scope, resources, responsibilities, processes, tools, and maintenance procedures for development projects.

		Organization Profile Quadrant	
Size & Complexity	Large	<b>III</b>  <b>4 – 6 Month Implementation</b>	<b>IV</b>  <b>6 – 12 Month Implementation</b>
	Small	<b>I</b>  <b>2 – 3 Month Implementation</b>	<b>II</b>  <b>3 – 4 Month Implementation</b>
		Low	High
		Process Need	

Using a brief survey focused on the client's size & complexity and need for process maturity & adherence, Questcon is able to determine how long the initial process improvement engagement should take. Our goal is to implement key improvements and mentor & transition process changes to our client's teams in an efficient and effective timeframe.

Software Testing			
Area of Analysis	Comparison Standard	Observations	
Test Case Creation (ST-TCC)	1. A test case template is defined and used for developing tests.	1. Multiple test case formats are used although it appears that all tests are stored in TestDirector.	Y
	2. Test cases include the following information: o Objective o Inputs/Data o Procedures o Expected Results	2. The test cases that were reviewed included all necessary parts, but were written at varying levels of detail.	Y
	3. Test cases are written that: o Cover all requirements, logical branches, and functional areas o Test at the system level not the unit level o Test all boundary conditions with precision o Test for error handling o Mimics user activity in the system	3. The test cases that were reviewed appeared to cover requirements, logical branches, and functional areas. Also, some boundary testing and error handling (negative testing) were identified in the sample tests reviewed, although more tests of these types were probably warranted.  The test cases that were reviewed included traceability to the requirements.	G
	4. Test cases are written with enough detail that others familiar with the project can execute them.	4. Test cases seem to be written at a very detailed level.	G
	5. The Project Team reviews the test cases prior to test execution.	5. The Project Team does not review test cases prior to test execution.	R
<b>Recommendations</b>			
R2. Utilize a single test case template as a standard for all future test case development. See <b>Recommendation R25</b> for further details.			
R3. Provide all test analysts and representatives from India with training in test analysis and design based on the concepts laid out in <b>Recommendation R27</b> .			
R4. Encourage the Scrum team testers to initiate collaborative reviews of test designs, at an appropriate level, across all of the Scrum teams.			

The Gap Analysis performed as part of the QA & Test assessment provides a clear indication of where an organization stands against over 120 industry best practices. All observed deficiencies are correlated to one or more process improvement recommendations.

**Stamford – Hartford – Boston – Philadelphia – Cincinnati – Greensboro – Raleigh**

**Contact Us:**

Questcon Technologies, Corporate Headquarters, Stamford, CT  
+1 888 339 0600  
+1 336 273 2428