



Onyx Case Study

Worldwide leader in CRM reduces rework, defects and enhances internal quality assurance and testing processes incorporating CSQA and CSTE best practices.

Onyx Software Corporation had a very mature QA function implemented strategically at organizational level, the quality management behavior and robustness of its internal testing methodology simplified the execution of the testing life cycle phases, the opportunity was to improve the internal testing methodology using CSQA and CSTE principles and concepts.

The Customer

Onyx Software Corporation is a worldwide leader in CRM, Customer Process and Customer Performance solutions for the enterprise. Onyx serves more than 1300 customers in a variety of industries. With offices in North America, Europe, Australia and Asia, a dedicated International R&D Team, based at company headquarters in Bellevue, Washington, is dedicated to the internationalization of products. Additional R&D teams in Europe and Asia manage product localization.

Business Opportunity

The window of opportunity with Onyx Software Corporation was to focus on continuous process improvement; reducing common causes of variation by strengthening internal quality assurance practices and testing life cycle processes with the mission of diminishing variability and preventing the occurrence of defects before releasing any of its CRM applications.

The Challenges

- Instill quality management principles in a Mexican culture.
- Deliver consistent test design artifacts, while performing test execution more effectively.
- Timelines for test design rework greater than the time estimated.
- Undetected graphical user defects in user acceptance testing phase.
- Committed software testers to perform test execution.
- Isolated test lab for software testing activities.

Solution - Approach

The quality environment infrastructure at Onyx headquarters set a good example for work in Monterrey, Mexico at Softtek facilities, its testing and quality assurance practices influenced team members to perform activities more structurally. The client had established an industry standard testing methodology where testing vocabulary and testing life cycle processes were already part of the organization's culture. The improvement approach had to maintain its emphasis on enhancing existing processes.

The approach to optimize this world-class testing organization initiated by adopting key skill categories from CSTE and CSQA Common Body Of Knowledge to close specific gaps. This process improvement program started in 2003 ending in 2007.

The approach was based on the following principles and concepts from CSTE and CSQA Common Body Of Knowledge:

- **Improvements for Quality Assurance Function -**
 - Quality Leadership (CSQA Skill Category 2 – Quality Leadership)
 - Explaining to software testing team the difference between working on a traditional management versus quality management environment.

- Establishing trust with testing team members -
 - An awareness program was established using internal tools to build web sites to share testing knowledge based on CSTE and CSQA principles and concepts.
 - Empowerment of employees -
 - Delegating challenging testing tasks to team members based on their strengths.
- Quality Management Infrastructure (CSQA Skill Category 2 – Quality Leadership)
 - Using visual aids and formal explanations to transmit the message of the benefits of establishing a quality management Infrastructure.
- Quality Tools (CSQA Skill Category 4 – Quality Assurance)
 - Implementing management tools to reduce common causes of variation -
 - Sessions for brainstorming to generate creative ideas to improve existing testing life cycle processes and enhance test execution cycles.
 - Cause-and-Effect workshop implemented to visualize and identify potential causes of problems in the test execution phase.
- **Improvements for Testing Function -**
 - Software Testing Principles and Concepts (CSTE Skill Category 1 – Software Testing Principles and Concepts)
 - Testing techniques -
 - The practice of static testing was encouraged to be implemented by all testing team members when designing testing artifacts, the objective was to reduce variability and rework.
 - Build The Test Environment (CSTE Skill Category 2 – Build The Test Environment)
 - A testing lab was replicated based on client’s needs.
 - Procedures were documented on time as knowledge transfer, to make the installations consistent across the projects.
 - Managing The Test Project (CSTE Skill Category 3 – Managing The Test Project)
 - Test Supervision -
 - Websites were designed to keep a good communication bridge with team members.
 - Providing constructive criticism to team members to help them grow on their interest area.
 - Implementing One-on-One meetings to establish a healthy relationship between team members and test leads.
 - Recognition program was established to keep the momentum and motivation flowing across the team.
 - Test Leadership -
 - Team building - Inspiring team members to learn industry testing standards through formal weekly sessions sharing best practices from CSTE and CSQA Common Body Of Knowledge.
 - Managing Change -
 - External tool implemented to keep versioning control of testing process documentation.
 - Executing The Test Plan (CSTE Skill Category 5 – Executing The Test Plan)
 - Implemented the approach outlined in the CSTE Common Body Of Knowledge to design Test Cases.



To review the detailed approach for this case study read the complete solution at:
http://www.msqa.org/Case_Studies.html

Benefits

- Reinforced existing Onyx QA function with standard quality assurance principles and practices.
 - The client benefited from the adoption of Cause and Effect Analysis workshop to detect causes and correct any deviations on time.
- Implemented best practices for software quality control and software quality assurance
 - The implementation of CSTE and CSQA principles helped the testing team to become more competent in their testing activities; this drew Onyx management attention to delegate more high risk tasks to team members.
- Enhanced work environment by implementing quality management philosophy techniques, filling gaps in existing methodology.