

Complex Testing of an Auction Draft System

Customer

The customer is a software development company that developed a website for online auctions.

Company	<i>Software Development Company</i>
Country	<i>USA</i>
Business Domain	<i>Entertainment</i>
Services Used	<i>Functional, Load, Stress Testing</i>
Cooperation Model	<i>QA Outsourcing for a Development Company</i>
Duration	<i>2 years</i>
Efforts	<i>30 man-months</i>

Project

The idea of the project was to revolutionize fantasy sports by bringing auction drafting to the mainstream. So far in most of the games and leagues fantasy rosters were filled by means of snake draft that seemed to be slow, unimaginative, and boring. The main objective of the customer was to offer auction drafting as an exciting and dynamic process.

Challenge

The major challenge of the project was complex but efficient Artificial Intelligence design: the goal was to support hundreds of simultaneously running auctions, thousands of participants and lots without any lags and negative performance issues. The original system design failed to support the huge load the customer expected.

The first task of A1QA was to perform functional testing during the project development.

The second task was to execute stress and load tests to allocate all possible issues concerned with the system productivity.

Solution

From the beginning of the project, our QA engineers conducted a high-level analysis of the project logic, created a wide range of test cases (covering different types of auctions such as private/public, demo/real, football/baseball, etc and the work of all project functions under normal and urgent conditions) along with the project development and executed tests according to these test cases.

A really nontrivial point that the QA team faced within the project was the work of artificial intelligence mechanism – the engineers had to understand and track all the possible work algorithms and verify if they were correct.

Stress testing was executed to determine how many users could be simultaneously handled in the application environment without deny-of-access errors and with normal page-load time.

Load testing was run to provide the customer with detailed information on how the environment handles a specific load of users.

Technologies used

Operating systems: WinXP

Browsers: I.E 6.0, Firefox 2.0, Safari 1.3

Defect tracking system: Rational ClearQuest

Success

- The data obtained through testing, as well as close and consistent cooperation between the QA and development teams made it possible to produce a high-quality system that can handle successfully a very high load.
- Together with A1QA, our customer won the Fantasy Sports Trade Association Award for the Best New Site in the USA!