CANTATA
INTELLIGENT TESTING

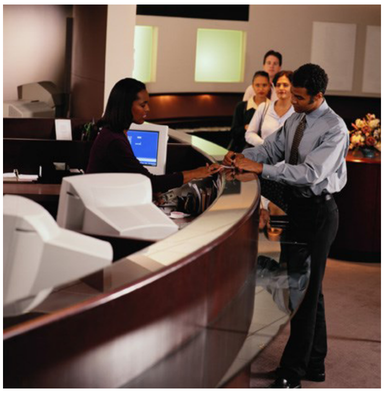
QA SYSTEMS
The Software Quality Company

SECTOR
IT & Telco

Case Study

Britannia

Britannia Building Society



ABOUT THE COMPANY

Britannia Building Society (BBS) is a financial institution that offers a large range of mortgage, loan, investment and insurance services to its members.

The society operates a network of approximately two hundred branch offices, supports ninety financial advisers, a life assurance subsidiary (Britannia Life) and a chain of estate agents.

In accordance with other financial institutions, BBS' 'assets' are its financial products and the information it holds on customers. As such, the systems which present, manipulate and administer this information are very much the 'bread and butter' of BBS' existence and, furthermore, its basis for growth.

Background

The BBS Systems Department had a long history of using Cobol and mainframe technology. In common with a general trend in the financial sector, a decision was made to move towards object oriented systems development, using C++. Typical systems have GUI front-ends and run on Unix workstations and PCs under Windows. The use of GUIs was intended to permit the society to develop sophisticated support systems, while keeping the need for user-training to a minimum. As ever, time to market was a critical factor, so speed in implementation was a high priority.

Reusability and Reliability

BBS decided that 'reusability' would be the main means of achieving their goals. David Croft, Principal Systems Architect, explained this philosophy as follows: "We wanted to create a library of reusable and portable business classes, so that we could quickly build systems for all business areas. ***Vital to the mission was that these classes be 100% reliable***; this meant bottom-to-top testing. ***Just as you wouldn't build an aeroplane with untested components, so we wouldn't deliver systems which hadn't been through the same process.***" Croft was also interested in testing because the move into OO and C++ was taking the development teams into new territory; thorough testing was the means by which he could check the effectiveness of the new design and implementation methods.

> ***"The fact that we can show them readable test output, with evidence of completeness, is very useful!"***

Early Benefits

The evaluation proved positive for Cantata. Beardmore summarised the benefits in the following order: “**The *confidence we gained from using coverage analysis*** to see that the code had been thoroughly tested, the ability to detect redundant and unreachable code, and ***the uniformity of testing style which Cantata introduced.*** *This meant everybody could understand each other’s work, and we quickly evolved standards which gave a balance between useful verification and ‘overkill’.”*

Beardmore also observed that, on the productivity front, Cantata test scripts were very reusable. This ensured that once a few tests had been created, the remainder could be generated quickly by simply copying and editing. **The old bugbear of test creation taking a disproportionate length of time had vanished.**

Dave Croft, who was monitoring all of this work, identified another gain - namely the ability to satisfy the society’s internal auditors that the development team was doing their work absolutely in accord with ‘best practice’, and that no shortcuts on quality were being taken. ***“The fact that we can show them readable test output, with evidence of completeness, is very useful.”***

Gearing Up

Post-evaluation, the team invested in five Cantata licences to run on PCs with Borland C++. The immediate goal was to provide support for the insurance quotations side of the business, where government regulations required commission to be disclosed to customers.

The size of the team has now increased and a ‘production line’ approach has been adopted. Croft is confident that his delivery targets will be met and he attributes this to the ‘engineering approach’ which was adopted. “*Productivity with Rapid Application Development techniques is all very well,* **but only thorough bottom-to-top testing gives us the confidence that our systems will work reliably.**”

All case study text has been approved by the relevant customer.
QA Systems acquired the Cantata business taking over all development, support and sales from IPL in March 2012.
Cantata is the extension of the Cantata++ tool.

Why Unit and Integration Test?

Companies in the IT & Telco sector perform unit and integration tests to make their testing more efficient.

Reduce Commercial Risk

- Increase software quality by thorough unit testing to prevent impacts on corporate and brand reputation
- Use state of the art testing to prevent against fitness for purpose litigation
- Systems are too complex to thoroughly test, so they are decomposed into testable units

> ***“Previous good experience with AdaTEST and Cantata, made Cantata an obvious tool to evaluate”***

Minimize Overall Testing Cost

- Testing code earlier is cheaper (less re-work costs)
- Most effective use of testing resources (unit tests do not have to wait for system builds)
- Increases overall software quality (more thorough testing is possible at unit level)