Success Story

International Spell Checker

Universal re-engineers original C/C++ code in Java to run in server-centric, multi-user environment

Our client
Inso Corporation (now part of Stellent) is a leading provider of tools for the management, exchange and dynamic delivery of critical business information. Inso's award-winning technology enables large corporations to manage, exchange and publish all types of information, from the simplest memo to the most complex multimedia document.

Objectives and issues
Inso is the author of a highly popular spell checker program implemented by many large software companies, including Microsoft. This product was the result of years of development and revisions using C & C++. With AuLait 1.0 ("with milk" in French), Inso management wanted to translate this award-winning software into Java to enable greater flexibility in deployment and to adapt it to a server-centric, multi-user environment.

What Universal delivered
Universal delivered a 100% pure Java implementation of the spell checker application for OEMs and direct end users using Java-based word processors. The new software was fully Unicode 2.0 compliant, provided complete spell checking and personal dictionary capabilities, and was designed to enable the secure sharing of resources (linguistic databases & personal dictionaries). It also featured some very thin clients - a few kilobytes in size.

Value to our customer
Universal's implementation exceeded Inso's expectations in many ways. First, our development team's productivity was very high – the number of lines produced per month per developer was *twice* as high than for a similar project in C or C++, but the number of defects was only a *third* of what Inso came to expect. All of this at an unbeatable value proposition to our client.

Designed following rigorous security specifications in which high level classes were systematically protected through interfaces, the quality and robustness of the solution earned us kudos from Inso. The implementation also took full advantage of the inherent flexibility of Java in deployment, and the architecture was generic enough to accommodate any middleware between multiple clients and the server or between servers.

This added flexibility and robustness did not translate into a slower application. *Au contraire*, when it was released, AuLait's performance proved to be comparable to previous C/C++ versions, largely thanks to our software developers' superior mastery of Java. This fact was later recognized when Sun Microsystems, the inventor of Java, integrated AuLait into its own Java-based word processing software, Star Office.

Objectives
- Translate an award-winning C/C++-based spell checker into Java

Challenges
- Software had to be adapted to a server-centric, multi-user environment

Solution
A 100% pure Java implementation featuring:
- ➢ Full compliance with Unicode 2.0
- ➢ Complete check spelling and personal dictionary capabilities
- ➢ Secure sharing of resources such as linguistic databases and personal dictionaries
- ➢ Some very thin clients (a few kilobytes in size)

Results
- ✓ Similar performance to C/C++ releases
- ✓ Robust, flexible implementation
- ✓ Any middleware can be accommodated
- ✓ High productivity of development team – *twice* as much code per month per developer with a *third* of the defects

ROI delivered
- ✓ Superior quality of implementation at an unbeatable value proposition

Universal SOFTWARE CORPORATION
20 Industrial Park Drive, Nashua, NH 03062
Tel: 603-689-2600 Fax: 603--598-0739
www.universal-sw.com