Consulting Project Abstract

User Interface for Real-Time Control System

Our Customer's Problem:

The customer had a complex C++ based user interface to control a real-time point-of-sale system for gas stations. The system was very difficult to maintain and the user interface technology and usability was severely outdated.

Why This Was A Problem:

New market demands required a large-scale redesign to improve usability. However, the old system was prohibitive in terms of cost of development and ongoing maintenance.

Our Solution:

InferData formed a project team involving InferData experts, and customer constituents. The team was led by InferData, and moved off site to the InferData facilities. In addition to the InferData experts, the team had user-representatives and engineers from the customer's development organization. The group created a highly sophisticated touch-screen oriented user interface based upon the proper usability studies, and state of the art design techniques. Collectively, the team was extremely efficient -- due mostly to the high quality of the participants, and the use of agile development methodology. The system applied Microsoft architecture and comprised of an optimized design component-based architecture. The implementation was performed in C++ and Visual Basic. During this nine-month consulting assignment InferData also evaluated ActivePOS (Microsoft standard for Point of Sale systems), and designed an Open POS API around the customer's legacy system that we implemented in C++.

Results:

The system was delivered ahead of schedule and on budget. In addition, with the customer's intimate participation, they were able to retain valued expertise through the product development and design process. The ultimate product transition into the development organization was both smooth and error free. The design also received

several awards, and high praise from both engineers and
system users.