

Shop Automation System Migration

Intetics performs system migration and re-architecture

Client

IMPAQ Co. UK, the company providing custom software development, maintenance and testing services since 1992. In the context of the given project IMPAQ acted as a contractor of Ladbrokes Limited, one of the major clients IMPAQ has long-term relationships with.

Challenge

Ladbrokes is one of the biggest companies in gambling business across the UK and Ireland. They have more than 2000 of shops equipped with custom software for shop work automation.

Shop automation system allows till operators to:

- a) Take bets from clients;
- b) Manage bets through the workflow;
- c) Communicate to a different external data provider about placing bets, getting results of matches/races, etc.;
- d) Pay return to winners.

Shop automation system is a set of applications distributed across the network with different configurations available (for shop server, shop till, head office server, etc). The system is implemented in VB6 and C++ 6.0, and supports Windows 2000 operating system only. Such a solution has several disadvantages:

- a) Windows 2000 is no more supported by Microsoft, with no updates and patches released;
- b) Code in VB6 and C++ 6.0 is hard to maintain and extend as it demands heavy spending on overpatching;
- c) It's impossible to use modern programming technologies for a prompter and more convenient development process.

Something needed to be changed and the company decided to migrate the system to another platform.

Ladbrokes has several IT service providers, and each new project is offered for tender with the winner being chosen on the best price-quality ratio basis. When IMPAQ was announced to have won the tender, they decided to outsource the project to Intetics due to our successful long-term partnering relationship.

The project objectives were as follows:

- **Objective 1:** Migrate the project to .NET platform.
- **Objective 2:** Perform re-architecture of the project to improve performance and decrease maintenance costs.





- **Objective 3:** Support Windows Vista operating system.
- **Objective 4:** Immediate integration of migrated pieces to the live system.

□ Solution

There were 2 ways to migrate the project:

- a) Line-by-line migration.
- b) Developing applications for .NET from scratch.

Using line-by-line migration was potentially the easiest way, but that didn't allow us to achieve objective 2, so it was decided to develop applications from scratch. Since the client required immediate delivery of migrated pieces of the system to live shops (to get the benefits as soon as possible), the system was decomposed into quite independent sub-projects which could be migrated on their own and incorporated into the system without affecting other pieces. This could provide step-by-step migration with no impact on business flow.

Different applications had different policies for logging their activity during the work, what significantly complicated their further maintenance by technical support staff. To improve maintenance the new logging subsystem was suggested. The logging standards were well documented, and basic components for standard uniform logging were introduced.

To improve the quality of code produced (as well as make further code changes controllable) unit tests for core components were developed. Continuous integration process was established to keep code constantly tested and working.



□ Technologies Utilized

- .Net Framework 2.0;
- Visual Studio 2005;
- MS SQL Server 2000/2005;
- MS Message Queue.



Results

Intetics team has implemented the first part of the project - optical recognition of mark sense slips, as well as integrated this part into the existing system.

Additionally the team has analyzed the entire project and broke it down into separate independent groups for future migration. After successful completion of the first sub-project, the client decided to outsource optimization of several other parts of the system to Intetics.

Further information and other case studies can be found on our website at www.intetics.com