

# Borland® JBuilder®

## *Case Study*

### Borland® JBuilder® helps keep aircraft flying

#### **Background**

Mxi Technologies provides a large-scale software application that plans, schedules, and tracks the maintenance requirements and maintenance execution on large fleets of aircraft. The system supports hundreds of users managing aircraft operating at several locations worldwide and has been designed to meet the maintenance and engineering/maintenance repair and overhaul needs of commercial airlines, military operators, corporate and regional operators, as well as manufacturers of aircraft, engines, and parts. Mxi has taken a leadership role and has succeeded in winning key accounts, including Delta Air Lines, Qantas, Air Canada, NetJets, Boeing, Bombardier Aerospace, Executive Jet Management (a NetJets company), the U.S. Navy, FiatAvio, and the U.S. Army. The complex and highly specialized application from Mxi promotes safety with adherence to regulatory compliance requirements, reduces on-hand inventory, and reduces aircraft maintenance downtime, reducing the bottom line.

#### **The challenge**

Mxi, like many companies that had built business information systems in the late 1990s, was faced with the challenge of re-architecting its client/server product Maintenix® into an n-tier Web application. Driven primarily by its legacy architecture in PowerBuilder®, Mxi began moving parts of its product to an Integrated Development Environment (IDE) for Java,™ using Sybase® EAServer and PowerJ®.

In 2000, Mxi first decided it must abandon PowerJ. Although tightly integrated with Sybase EAServer, PowerJ fell short of Mxi requirements. With Mark Lenox, Manager of Strategic Technology, heading the evaluation, the team was looking for a Java development environment that would facilitate development processes.

In looking simply at the IDE element, Borland® JBuilder® was the handsdown winner: starting the evaluation with JBuilder 3.5, and then standardizing on JBuilder 4, the development teams at Mxi took an instant liking to the ease of use and advanced capability of the Jbuilder development environment.

# **Borland®**

*With Borland JBuilder, the development team was able to “focus on what to build and not how to make it work.”*

*—Mark Lenox, Manager, Strategic Technology*

## The solution

For Mxi, the benefits derived from standardizing on JBuilder were immediate. First, JBuilder made a significant productivity impact on the project life cycle, automating tasks and dramatically reducing development time. Second, the team saved time and money on developer training. The ease with which developers at Mxi were able to get up to speed with JBuilder made the transition extremely easy and helped maintain a stable development environment. Mxi reported that the following three JBuilder capabilities had the strongest impact:

- CodeInsight™
- Visual EJB™ designer
- Source version control

Mxi strongly prefers an IDE for Java that does not require proprietary file formats. The team was pleased that JBuilder adheres to this standard.

In 2001, the team decided to replace Sybase EAServer with a more mature product to support the Java 2 Platform, Enterprise Edition (J2EE™). Once again, an evaluation was conducted on three leading application servers. When the team chose BEA WebLogic Server,™ the benefits of JBuilder came sharply into focus.

Upgrading to JBuilder 6, Mxi cited the tight integration between JBuilder and WebLogic as one clear reason to choose Borland tools. Using the #1 Java development environment and the #1 Java deployment solution, Mxi managed to rebuild in 16 weeks what had taken them more than 18 months to build initially.

“There is really a myth that continues to propagate today that the total platform solutions offered by two of the top three application server vendors have better IDE-to-application-server integration than the other best-of-breed solution option,” says Jeff Cass, Vice President of R&D at Mxi. “No single vendor can demonstrate the capability of the Borland Jbuilder and BEA WebLogic Server combination.”

## The results

Strategic Technology Manager Mark Lenox remarked that at last the team was able to “focus on what to build and not how to make it work.” In the past, developers had spent considerable time figuring out how to get JavaServer Pages™ (JSP™) and EJBs working (including debugging) in the application server. With the tight integration between JBuilder and WebLogic, getting JSPs and EJBs working together became a given— developers knew the code would perform. This experience was an eye opener for the development teams and helped to ease the pressure and time constraints on them and the project.

For Mxi, quality takes precedence above all other considerations when determining which software solution to use to design and build applications. Aircraft safety depends on the reliability and accuracy of the application Mxi builds, so poor

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performance and low quality are not options. Mxi recently became IS9001 certified, a process that incorporated the entire development process including designing the application, requirements capturing, building, and deploying. The extra development time that JBuilder frees up for the development team affords it the luxury to focus more intently on quality issues, recently highlighted by utilizing Borland Optimizeit™ Suite in-house to focus on application performance and to track down trouble spots within the code.

Mxi is pleased with the results JBuilder has provided and has extended its commitment by joining the Borland Software Assurance program to make sure that moving forward, the team will be up to date with the latest releases of Borland's award-winning technologies.

### Technology

Application	Enterprise resource planning application for commercial airlines
Tools	Borland® JBuilder®, Optimizeit™ Suite
Application server	BEA WebLogic Server™
Number of users	2,780 airplanes are maintained for flight readiness using Mxi technology
Development team size	25 developers
Development time	4 months

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