

## Patterns of Productivity and Power Simplify J2EE Development

### CUSTOMER

E-SoftSys

### INDUSTRY

Information Technology

### CHALLENGE

E-SoftSys wanted to redevelop its internal workflow management application in Java. Using two experienced Java programmers, initial manual development for the e-maintenance module took 400 hours—not counting the additional time required for adequate testing. Management believed the developers' skills and efforts could best be put to use elsewhere, so the project was cancelled.

### COMPUWARE ANSWER

As a Compuware customer for two years, with a dedicated UNIFACE development center in Bangalore, India, E-SoftSys was introduced to the OptimalJ development tool by its Compuware sales representative. Hoping it could take advantage of OptimalJ's ability to develop complete, working Java code automatically without demanding advanced development skill levels, E-SoftSys decided to revisit its E-Maintenance project. The company experienced a 40 percent improvement in productivity using a less experienced Java designer, thanks to OptimalJ's ability to design J2EE applications from a high level of abstraction.

Compuware solution used:

- OptimalJ

When E-SoftSys decided to rework a portion of an internal workflow application in Java, company executives planned for the task to be completed easily by two experienced Java developers. The job, initially estimated to take 400 hours, was quickly approaching that number and was not even half completed. The executives were about to abandon the project until they were introduced to OptimalJ.

When E-SoftSys learned of OptimalJ, a model driven architecture-based tool that accelerates Java development by generating working applications directly from visual models, the company was intrigued, to say the least.

OptimalJ provides a simple, yet powerful way to quickly build or modify distributed Java applications. Using patterns and model-driven application design, OptimalJ delivers high productivity and consistency throughout the development cycle, while shielding development teams from the complexities of the J2EE architecture.

### Putting OptimalJ to the Test

E-SoftSys' E-Office internal workflow application project features an E-Maintenance module, which logs and tracks in-house systems maintenance problems. "E-Maintenance helps our employees log maintenance requests, prioritize and track the progress," President and CEO Kat Shenoy explains. "The module also produces statistics for machine downtimes, which management can use to take the appropriate corrective actions for improvement. It also helps us meet the requirements mandated by ISO certification." ISO certification requires E-SoftSys to demonstrate continuous improvement in reducing the downtimes of PCs, servers and its network.



To test OptimalJ's productivity enhancement claims, E-SoftSys directed one of its business analysts who had little Java experience to redevelop the E-Maintenance module using OptimalJ—this time without the aid of the highly-trained Java developers.

Management was pleasantly surprised by the results: One business analyst was able to redevelop the entire E-Maintenance module in a little over half the time originally slated for the project using two experienced developers to create code manually. E-SoftSys improved productivity by 40 percent with OptimalJ.

### A Development Tool That Gets the Job Done

Adopting OptimalJ and its model-driven, pattern-based development paradigm resulted in many advantages for E-SoftSys. In addition to increased developer productivity, the company also reaped the benefits of a reduced programming skills requirement, simplification of the development process, easy application maintenance and enhancement, and reduced testing requirements.

“OptimalJ helped us reduce system downtimes, making our company more efficient.”

Kat Shenoy, President and CEO,  
E-SoftSys

“One of the best benefits OptimalJ offered us was simplification of the development process itself,” Shenoy says. “Many of the standard development activities—deployment script generation for example—are automatically and seamlessly integrated into OptimalJ. In addition, because OptimalJ implements all the cornerstones of model driven architecture, it has the ability to automatically transform from higher-level business platform independent models into lower-level models and eventually working code.

“We didn’t have to worry that skill shortages and productivity would adversely impact our J2EE development,” agrees Krishnaya Shenoy, general manager for E-SoftSys. “Basically, OptimalJ increases development productivity and frees Java programmers to handle the more complex issues. And that’s probably one of the nicest features of OptimalJ.”

Another benefit company representatives agree on is the quality of the working code OptimalJ produces. Rather than use two testers, as allocated in the original project, E-SoftSys found it necessary to assign only one to test the new application. “The main reason for this,” Kat Shenoy says, “is that OptimalJ produces bug-free code and testing was mostly related to functionality issues rather than finding bugs.” Nanda Kumar, Java development center manager, agrees: “OptimalJ generates excellent code.”

### Firm Believers in the Power of OptimalJ

When put to the test, OptimalJ delivered much more than E-SoftSys thought was possible. “In my opinion, OptimalJ is the only tool currently available that realizes the true benefits of Object Management Group’s Model Driven Architecture,” Kat Shenoy says in reference to the standard embraced by OptimalJ. “Initial manual development of the E-Maintenance application took 400 hours using two experienced Java programmers. And this did not include the additional time required to manually test the module!

“With OptimalJ, however, one business analyst, with less Java experience and purely a generalist in workflow-based applications, completed redevelopment of the same module, including testing, in 248 hours. The productivity gains and cost savings realized with OptimalJ are substantial.”

Another benefit of using OptimalJ, confirms Shenoy, “is that it has made us much more efficient as a company. It has helped us reduce system downtimes and meet some of the communication requirements mandated by ISO certification. Now we are able to maintain and access statistics online, and produce reports on downtimes instantaneously.”

### Taking Applications to the Next Level

Future plans for using OptimalJ at E-SoftSys include redeveloping the remaining modules of the E-Office application. According to Kumar, top on the list is the internal audit module.

### KEY FACTS

#### E-SoftSys

139 Bayhill Drive  
Blue Bell, PA 19422  
Phone: 610-277-7457  
E-mail: kshenoy@e-softsys.com  
www.e-softsys.com

- founded in 1998
- an ISO9001:2000 certified company
- provides e-commerce consulting and full life-cycle development of e-commerce, wireless and client/server apps to customers in North America and Europe
- provides offshore development, maintenance and QA services through its development center in Bangalore, India.

“The internal audit module is a key area for maintaining ISO certification. As part of our quality standards, we will need to audit each project every two months and keep track of the results. These results are verified by an independent ISO audit once a year, so it’s important that we show continual improvements in our process. That’s why we’re planning to rework this module next with OptimalJ.”

Improving efficiency and productivity is important for any company. But for E-SoftSys, constant striving to be the best is part of maintaining its ISO certification. With OptimalJ, the company can take full advantage of all its development resources, and free up its more experienced Java architecture experts to set its development standards.

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