PowerVision **Solution**

SeminarPlanet Provides a World of Professional Event Information

SeminarPlanet envisioned a single point of on-line access for professional growth opportunities including training seminars, conferences, and other career-building events. The company wanted to build a world-class Web site to provide an Internet-based front end to a large, flexible database of cross-disciplinary event information. PowerVision provided an e-Business solution allowing for easy extensibility of content domains and application modules.

SeminarPlanet already owned a database of more than 15 thousand featured events, including tradeshows, conventions, seminars, and more. PowerVision's task was to build a Web site that could do more than simply display the data—the site had to incorporate business-to-business capabilities with an e-Commerce appeal in order to attract professionals, and still be easy to use.

Looking for a Cardiology Convention?

Using leading-edge technologies over a complex data model of the event industry, PowerVision Corporation created a Web-based locus for event organizers and attendees. In the first phase of the project, PowerVision created an interface to provide public and registered users access to details of the event listings, including featured sponsors, speakers, exhibitors, and activities. Registered members have the ability to register as an event organizer and add data of their own through a forms-driven publishing system.

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The need for modularization and extensibility led to a 100% pure Java solution, which provided the additional advantage of an effortless move from PowerVision's Windows NT development and test environments to the Sparc/Solaris production platform. An ERwin data model was produced to map the relationship between the event industry data and the role-based membership information.

Given the size of this domain, an enterprise-strength database was needed—Oracle 8i was chosen to fulfill that requirement. Above the Oracle tables, PowerVision engineers employed a custom combination of code generation and hand

Figure 1: Phase One of the SeminarPlanet solution: An easy-to-use Web-based interface.

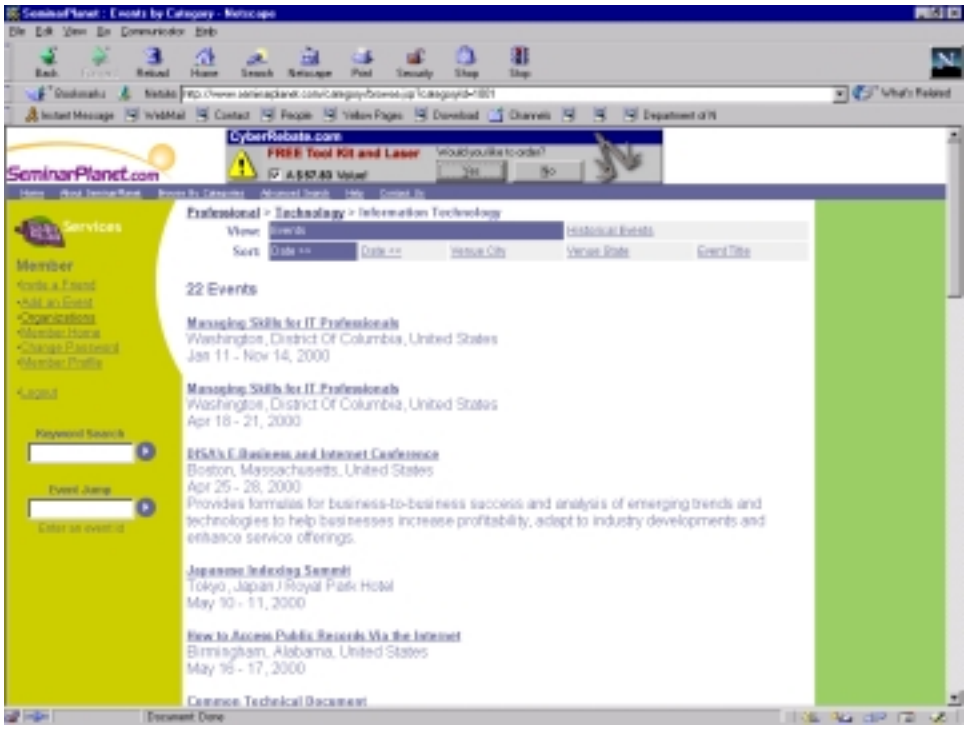
Business Area:
- Web Portals

Key Technologies:
- Oracle 8i
- Java Beans
- Java Servlets
- Java Server Pages
- Netscape Enterprise Server
- Code Generation

PowerVision's Role:
- Analyst
- Designer
- Architect
- Developer

tooling techniques to build a multi-tiered, 100% pure Java architecture. To maximize client portability and minimize the need for advanced browser technology on the user's end, a server-centric design was preferred.

A hierarchy of Java objects corresponding to each table in the database were built using a custom-made code generator initialized with database summary reports from ERwin. For each table, there is a corresponding Row Data Object (RDO) to encapsulate a record as a Java class. An initial layer of session objects, designed to function either as Enterprise Java Beans on the database server or over JDBC from the application server (as is the case in the initial release), use embedded SQL in Java (SQLJ) to manage database interactions and share RDOs with a layer of Java Beans—the "Web Beans", housed on the application server. The Web Beans provide persistent sessions, perform data validation services, and define the interfaces for inputs from the Web forms.



The pages and forms presented to the user are dynamically generated from a modular collection of Java Server Pages (JSPs), allowing the application to tailor its screens to the role of the user and providing for easy updates to look and feel elements. Form inputs are generated by method calls on the Web Beans, which speeds page development by eliminating tedious and error-prone form construction from the process. To the degree permitted by the current generation of browsers, page appearance is controlled using Cascading Style Sheets (CSS) and designed to degrade gracefully on clients with little or no CSS support.

This project was conceived as a long-term initiative with substantial growth in both function and scale scheduled to follow the initial release. Links to partner sites will enrich the content by providing weather, lodging, dining and entertainment information for the event locations. Later phases will also provide on-line event registration and billing capabilities, on-line subscriptions to newsletters , and monitoring of continuing education credits.