

➤ The Customer

The customer is a well-established company offering a variety of fine archival storage, display and presentation materials for a variety of media. The customer utilizes print and on-line catalogs to market its products directly to individuals, professional photographers, businesses and prominent cultural institutions throughout the world.

➤ The Problem

The client wanted to grow the business and become the largest seller of archival materials within the US market. In order to achieve this, the client came up with an online strategy to drive sales through an e-commerce site. However, the initial version of the site was beset with challenges. The website did not have the flexibility to take online customized orders from users, nor did it have the provisions to promote the various related services or products within its catalog to existing customers. End users also complained of poor usability, navigation and search facilities within the site. The customer realized it needed to redesign the site to integrate the existing ERP system and improve the site's usability in order to improve traffic and increase sales.

➤ The Solutions

Having understood the customer's needs and requirements, PreludeSys employed a proven offshore software development model with supported E-commerce technologies to turn a novel idea into reality using a handful of key steps:

Understand the existing system

The customer's site failed to appropriately capture the customer's desired business vision, strategy, business rules and daily business operations. PreludeSys used its

own methodology to identify software artifacts and source code fragments in the subject system to rebuild the site to be more flexible and correspond to the customer's intended design. PreludeSys also made a thorough analysis of the customer's branding to match its online presence with the client's print media for marketing consistency.

Understand the data interaction

Where ERP communication was necessary, PreludeSys developed a data model that would facilitate the flow of data from the existing ERP system which was the main resource for most of the customer's business operations. PreludeSys worked with the client to evaluate the data retrieved and develop new strategies for improvement.

Develop the application

PreludeSys designed a more capable and flexible ecommerce site which could scale both horizontally and vertically to accommodate additional users as the shopping platform grew. Being a retail e-commerce site, extra care was given to improve the usability and navigation of the site for first time and return users.

Additionally, PreludeSys improved the ERP integration and redesigned the interface to list the products available using better styles and smoother navigation features. The site was designed with highlighting features such as a configurable home page that could respond to data from input feeds and adjust promotional offers to correspond to a user's initial choices or changes in the business environments.

Industry - Retail

Solution - Virtual Store Front Development of an E-Commerce Site

Testing

PreludeSys updated the site adhering to Software Testing Life Cycle (STLC) standards to ensure a complete development of the legacy application. This meant constructing highly granular tests for site components, and increasing the breath of testing until all components within the site were properly integrated and vetted. PreludeSys used a variety of testing scenarios to ensure that the site would meet its intended goals:

- **Use Case testing** validated that the website met its functional goals.
- **Side-by-Side testing** verified that the applications were visually compatible and matched user expectations.
- **Integration testing** ensured that the site was compatible with the current infrastructure and would coexist with other applications.
- **User Acceptance testing** ensured that the user community was responsive to the design and would use the site for transactions.

Training and knowledge transfer

PreludeSys discussed with the client a strategy to transfer the application maintenance and development upon completion of the site redesign. To support this, PreludeSys developed multiple pieces of technical documentation. Initially, a programming guide was created for technical and development staff to get a 'jump start' on understanding the site's implementation. Once the site was complete, an Operations manual was written for production support and site customization and configuration.

Deployment

PreludeSys worked hand-in-hand with the Client's IT staff to ensure a clean deployment and straightforward user transition.

Additionally, PreludeSys provided 30/45 days of post-production support of the site. During that time, the customer's IT staff took an increasingly active role until the transition was complete.

➔ Technology Overview

PreludeSys offered a software solution using the power and flexibility of the modular approach facilitated by the J2EE platform, which was portable, scalable, secure, affordable and easy to use. This enabled PreludeSys to focus on the actual needs of the client instead of spending hours working on a single-source solution. PreludeSys designed the website using open source components such as Struts, spring, Hibernate and maintained the database in MySQL.

PreludeSys's designers developed an interface that emphasized ease of use and clean design. From redesigning the customer's logo to developing a strong catchphrase for the website, the design team worked to create a site that would appeal to new and repeat users.

PreludeSys developed the site with minimal participation of client's staff beyond the establishment of the site's requirements.

PreludeSys adopted the industry standard approach known as Model-View-Controller (MVC) architecture with J2EE design patterns and coding standards for the construction of the application. This decoupled each layer and separated the business code from the database and the view components, allowing flexibility in customization and enhanced accessibility for website maintenance.

PreludeSys developed the site with minimal participation of client's staff beyond the establishment of the site's requirements.