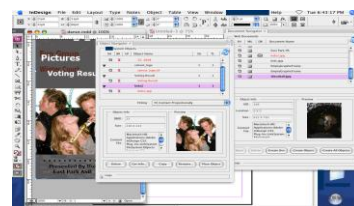




Dynamic Document Management System

A nimble SaaS solution, primarily for Sales/Marketing people



Executive summary

The client firm had a vision of a possible product/system, which could help meet the requirements of a largely ignored user base, i.e., the sales and marketing people, who are the chief responsible people for actual content in much significant documents. The rudimentary need was to focus on sharply reducing the turnaround time on getting the key updates made and delivered for publishing.

Mindfire took the challenge of shaping up the product/system based on just a set of ideas. Having had experience with such product development, along with expertise in related technologies, the Mindfire team swiftly moved to brainstorming sessions with the client firm's Product Manager, the primary interface between the engineering team (at Mindfire) and the customer (target markets/user-bases). Having identified the key requirements, we created the product roadmap until the possible third version. The pricing strategy considered two price segments as targets, in a defined sequence. So, we had already thought of at least two different products/solutions.

Storyboarding followed, to better identify with and understand the use cases and workflows, concentrating on the first couple of versions for implementation. Further discussions led to architecture, design, and most importantly, the project schedule, milestones, and deliverables based on two anticipated marketing windows, one for each version. We start actual development on Project 1 (version 1) after a final thrashing of overall project requirements and completed in time with excellent results and thereby equivalent client feedback. Second project (version 2) in the product roadmap went through similar processes and delivered to the utmost satisfaction of the client firm.

The development of first two versions has made way to delve deep to the third version, which scales the system up to multiple users and a broader user base, including accessorizing the system with mobile-client application(s). The development is under way and things couldn't possibly look any better for the complete product suite.

About our client

Client *Leading Adobe Products, Graphics, Collaboration Software Company*
Location *California, USA*
Industry *Publishing Software Development*

Business situation

The client firm identified a product space, which they wanted to utilize to the best effect. Mindfire's product development experience, with deep technical expertise, and numerous software projects experience helped the client firm in establishing a product roadmap and a feasible system architecture/design with respect to each product version, considering the price targets/points for each one.

Fundamentally, there were two different solutions, yet three product versions or releases. The first two versions catered to a single-user price-point solution and the third version to a multiple-users price-point solution. The first two versions catered to the two anticipated marketing windows identified for the first solution, with individual sales or marketing people, or graphic designers as target users. The third version, currently under development, is targeted for a broader user-base – bigger companies, having multi-user setups, collaborative environments, a mix of different kind of users,



form sales/marketing to graphic/document designers/experts. *The single-user product is the primary focus in this case study.* The concept behind the product being:

1. Simple to use content-based application
 - Content produced in and as Adobe InDesign documents
 - Application based on a SaaS based (level 2 maturity) web architecture
2. Users can add/delete/modify data objects in existing content
 - InDesign page-items (simple/complex), image files, other format files (import/export) – using very simple UI
3. User base – Sales/Marketing people and Graphic Designers
4. Single-user application
 - Web-application and Adobe InDesign based
 - Windows/PC or Mac OSX/Mac based; Supported browsers - IE7/Safari
 - Fast performance; Easy to use and relate with GUIs; Intuitive navigation
 - Low-res thumbnails: quick access to desired content; On-demand high-res document snapshots/previews;
 - Precision text editing with WYSIWY views with zoom & panning features

Solution details

The Mindfire Solution

This browser-based system plays an important role in quick and easy document/content management. This system is essentially designed for the target user-base i.e., for non-InDesign experts/graphic designers dealing with relatively simpler layouts and content. *System components:* Adobe InDesign Plug-ins, Web Application (Apache/JSP based), Web Service (Apache Tomcat, Axis2/Java based), Database (SQLite based), and a Simple File Server

This system allows the following:

- Objects from InDesign documents can be saved into a database,
- Dynamic links to layout objects and content in the database can be established, and
- Users can import and update objects in layout that have active dynamic links

The application has three user workflows based primary uses:

- Deconstruction of (InDesign) layout (via Document Navigator) – Allows saving of page-items/objects as assets and re-purposing
- Maintenance of InDesign layout (via System Navigator) – Allows activating dynamic links to layout frames/objects and data based content
- Content Update of InDesign layout (via Web-based System Application) – A user can import and update frames/objects and text in layouts (Web Documents) that have active dynamic links. S/he can also do a variable/ ripple update affecting multiple instances of the same link on the same document or multiple documents.

Apart from this, the user can also request various reports on updates/history on screen or for print. An InDesign plug-in allows deconstruction/construction from InDesign documents, navigation of document objects/ system documents, file system & database handling. A web application is used to provide limited functionality on construction & deconstruction (actually import), along with the content update(s) as described above.

Achievements

- Product roadmap identification, idea to concept to elaboration, perfectly aligned with client firm's requirements,
- Sticking to price target constraints on the desired product versions,



- Very thin web-based client/user application as an interface to the maturity level-2 SaaS based system,
- Support for both Apple Mac OSX and Microsoft Windows operating systems,
- Support for both Safari, FireFox and IE7 without any differences in GUI look and feel,
- Creation of architecture and design in view of further versions to be developed – the 3rd version's engineering/implementation is a natural transition from the last version.
- Embedded SQLite based database for single user, moving to proposed MySQL database, continuing the open-source software usage trend to keep the pricing within respectable and exceedingly achievable limits.

Technologies

C++, XML, Windows OS, Mac OSX, InDesign CS2/CS3/CS4 application/plugin development, Axis2/Java, JSP/Apache, SQLite (file/server), MySQL, Safari, FireFox and Internet Explorer browser support etc.

Final results

Software system

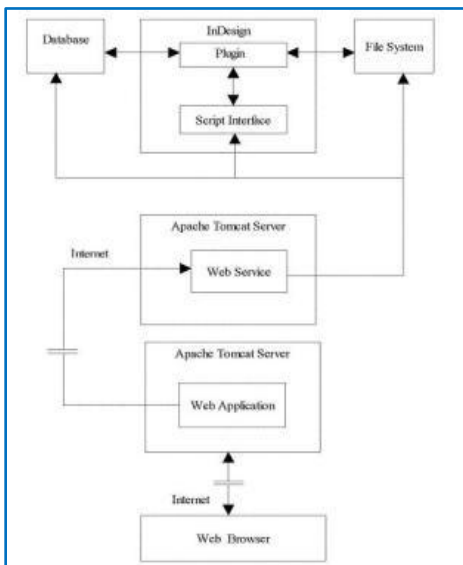


Fig-1- System Schematic Diagram

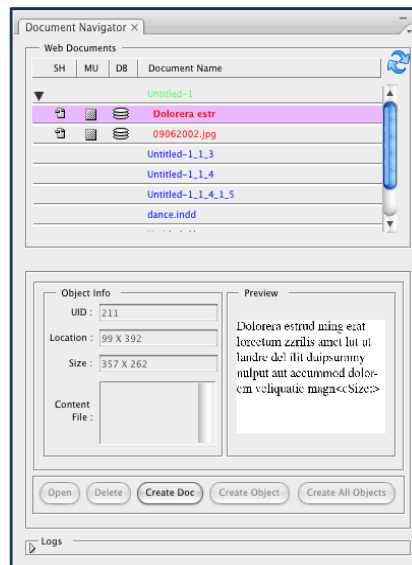


Fig-2 – InDesign Doc Navigation

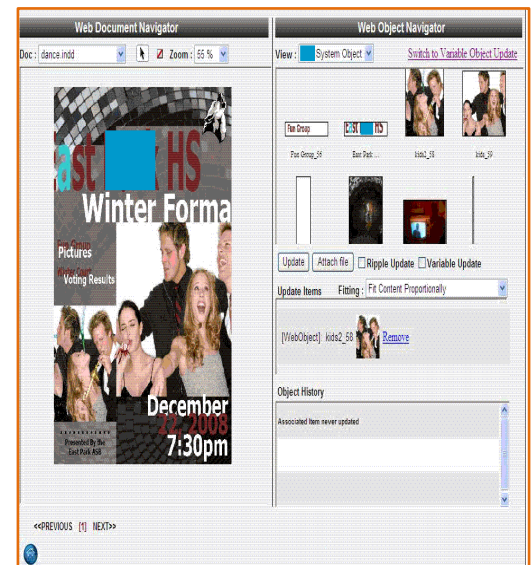


Fig-3 – Web Application / Navigators

Customer benefits

The client firm hugely benefitted from the product development experience of Mindfire engineering team – **getting the right product** was crucial for the success of the concrete initiatives on its original vision.

Mindfire engineering team's vast and varied project management and development experience helped the client firm in **getting the product right**.

Mindfire team handled both challenges, also playing an active role in difficult trade-off decisions.

Future relationship

Mindfire continues to be an active software service provider/vendor for the client firm, handling product and project development from its broad product portfolio, involving various different technologies and trends.

Mindfire is developing the third product in the product suite identified in the earlier discussions when the product roadmap was being set.