The Chemical Daily Co., Ltd, creates more efficient Automated Layout Database System using ProDIX, Adobe® InDesign®, and Xpriori® XMS

Unified Management of DTP data realized with collaborative design using ProDIX and Adobe InDesign, with Xpriori XMS serving as XML database

Company
The Chemical Daily Co., Ltd
Japan

Industry
Publishing, Seminars, Events for Chemical and related industries

Web Site
www.chemicaldaily.co.jp

Background
The company required a more efficient, flexible system for unified data management.

Challenge
Chemical Daily Co. wanted an end-to-end design that would leverage the power of XML, with a customer interface that was easy to use and a data server that didn't restrict the system's flexibility or speed.

Solution
Using Xpriori XMS at the core as an XML database, The Chemical Co. created an Auto-mated Layout system using Adobe InDesign for the front-end and ProDIX for layout.

Why XMS?

- No Schema design required.

- The database builds itself automatically as the system is used.

- Automatic full indexing

- High-speed search capability and steady performance

- Handles heterogeneous data structures and formats effortlessly

- XMS interface with Adobe

Since it was established in 1935, The Chemical Daily Co., Ltd., has been reporting on the chemical and other related industries —from their emergence and development, to the great changes they have gone through in an era of globalization. Growing alongside the chemical industry, the Chemical Daily Co. has expanded. It now publishes technical books, papers and periodicals, such as "The Chemical Daily" and the English weekly "Japan Chemical Week," and also holds exhibitions and seminars, sets up industry inspection teams, and provides multimedia information to various clients.

The company recently reconsidered its editing system that was shared with the newspaper division and replaced it with a desktop publishing ("DTP") data management system using ProDIX and Adobe InDesign with an XML database, Xpriori XMS, at its core. The new system greatly increases the efficiency of the layout process, allowing for the unified maintenance and indexing of data. The Chemical Daily aims to reduce production costs by 50% with its new system and envisions new business opportunities for the sale of its data.

The Setting

The Manager of Information Systems at The Chemical Daily Company, Mr. Yoshio Kanda, spoke about the background of this move:

> *"The lease for the old system was just ending and it was time for a new system to be considered. One of the basic criteria for the new system was that it had to integrate the editing and production workflow together, and that the maintenance of the data had to be done flexibly. In particular, the publishing division handles periodical pieces that publish large amounts of data from company or chemical reports. In order to efficiently put together these "data books", each containing several thousand pages, a system that allows easy maintenance of the data is invaluable. So we began to think about a database that would provide a unified management system for the DTP data as a solution to this problem."*
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> *-Mr. Yoshio Kanda*

Looking to the future, XML was the language of choice for document markup. But deciding on a DTP software for the front end was more difficult. The selection of a suitable XML database was an important factor in choosing the new system, too.

> *"In light of the rapid spread of the internet, the competitiveness of the publishing industry has been decreasing dramatically. If we are to compete in the future, we must not limit ourselves to a book format. We need to think of the data in books as content, and think ahead about secondary uses for the data. In this context, the advantages, the flexibility and expandability that XML would bring was clear. "*
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> *-Mr. Tamio Kogure, Deputy Director of Publishing Division Head Office, Publishing and Electronic Information Business, The Chemical Daily Co.*

The Opportunity

The Chemical Daily Company had the opportunity to design a system that would provide an easy user interface, allow flexible management of their specialized data, and leverage the potential of XML. Selecting the right components would be critical to the project's success.

The selection of DTP software for the front end of the system was based on the following principle: choose a software that standardizes the skill of the operators and has good future prospects. After deliberating over a few solutions, the company almost picked Adobe FrameMaker as the front end software.

> *"Just then, there was a seminar on an automated layout system using ProDIX and Adobe InDesign, with Xpriori XMS as the database. We had wished for Adobe InDesign as the DTP software, but at the time when Adobe FrameMaker was being suggested to us, there was a problem with connecting Adobe InDesign to the XML database, and we had abandoned the idea. But the real time linking of Adobe InDesign and the XML database had been progressing, and with this development, the DTP software for the publishing side could be unified and the skills standardized. We thought, 'This is it'."*
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> *— Mr. Kanda*

In the original solution, the XML database was linked to the layout of the pages for each publication, therefore the programs (EDD) had to be written separately, making its handling within the company difficult. The ProDIX + Adobe InDesign system with Xpriori XMS as the database, on the other hand, did not require any individual development for the drawing up of the printing plates or the exchange of XML data, and it could be accomplished within the company. In other words, data could be exchanged in both directions with the database, and each page layout could be changed or adjusted at any time. The benefits of this capability were immense.

ProDIX is an XML layout engine that works as a plug-in for Adobe InDesign. Using XML with Adobe InDesign, templates can be automatically generated and data can be exchanged or saved, and when the data in the layout is updated, the changes made are stored directly in the Xpriori XMS database, so the data is always up to date. With all of the components selected, the design was completed.

The Solution

This new DTP data management system was made operational for the first time for the production of "Japan Chemical Directory".

Mr. Akimori Kitamura of ProField, who was involved in the development of the system, commented, *"The aim was to reproduce the page layout as it always was, so the assignment was clear. We created plug-ins and tested them repeatedly on demos; to find the right one was simply a battle against time. Transferring around 2000 pages of existing DTP data was extremely difficult, though."* If it wasn't for experts at ProField, who understand Adobe InDesign and Xpriori XMS through and through, such a rapid response may not have been possible. The biggest advantage of using Xpriori XMS in the system built for The Chemical Daily Company is that "the database builds itself automatically as the system is used."

> *"What is created in Adobe InDesign is incorporated directly into the database, but the person creating the file is not conscious of the fact that the database is being used. It is extremely easy. With relational databases, each field had to be set manually; with this system, the database is built automatically as you work."*
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> *—Mr. Akira Igura, Director of Publishing Division IT Environment Support , The Chemical Daily Co. Publishing and Electronic Information Business Head Office*
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> *"At the beginning, the benefits were not so obvious, but when we began the production of the "Japan Chemical Directory", the data was structured in various ways, such as font type and size. Schema design is not required: it is extremely helpful that you can add to the database without having to think about the structure of the data."*
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> *—Mr. Kanda*

That the book was safely completed within a tight timeline without a great increase in the number of staff was exceptional.

The Result

With new system, The Chemical Daily Company aims to reduce production costs by 50% for current processes. Moreover, they are already thinking about the future — reaching beyond the boundaries of paper publishing, and aiming for a new way of transmitting information.

> *"We've already published "Japan Chemical Directory" and "JCW Chemical Products Handbook" using this system. Taking into consideration the aptitude of the data, we hope to keep using the system aggressively for other publications in the future."*
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> *— Mr. Fusao Majima, Chief Director, Publishing and Electronic Information, The Chemical Daily Co.*

Targets for the future include managing past editions, for which the high speed searching function of Xpriori XMS should come into full use. When the useful schema-independent function is put into effect, there is the possibility that wrong data or structures may become mixed in the database, so by sampling and comparing the past editions, simple mistakes can be checked against each other.

Furthermore, by performing regular maintenance of the company or chemical data in the database, the work involved in the production of future publications can be greatly reduced. By taking part in the production of the first two books on this system, the skill levels of the operators have already increased. In the future, The Chemical Daily Company aims to release publications at half the current costs.

Additionally, The Chemical Daily Co. is also looking towards database businesses that make secondary use of the stored DTP data. This "one source, multiple uses" feature is a development possible only with Xpriori XMS.

> *"The commercialization of the database is made possible and effortless by the system, using the stored data for off-line data products such as CD-ROMs or PDFs." —Mr. Kanda*

Since Xpriori XMS allows data to be stored and retrieved without schemas, it allows businesses to imagine new business models in which data becomes a marketable product, as well as a resource.

As The Chemical Daily Co. develops their publishing business in the future, the role of Xpriori XMS will become ever greater, and the introduction of the system is sure to create a big advantage.

For more information about Xpriori, including our product brochures, white papers, and company information, please visit us at www.xpriori.com.

About Xpriori

Xpriori is a technology innovator and provider of a self-constructing XML database and related products that are powered by the company's patented Digital Pattern Processing technology.

Xpriori's products allow organizations to rapidly respond to changing business requirements by eliminating costly database development time and enabling the creation of adaptable applications – business applications that easily adapt to heterogeneous and ever-changing data sets.

Xpriori is privately held and headquartered in Colorado Springs, Colorado. For more information, visit us on the web at

www.xpriori.com.

Xpriori XMS

Xpriori® XMS, XML Information Management System, is a self-constructing native XML information management system built on Xpriori's patented Digital Pattern Processing technology (DPP) for the purpose of persisting, managing and developing solutions with XML.

Xpriori Content Manager, XCM, is only one of many applications built to leverage the power of DPP and XML using Xpriori® XML Information Management System.

With Xpriori® XMS, changes in business requirements or upgrades in functionality can be accomplished without traditional application and information design, significantly increasing an application's extensibility and flexibility while dramatically reducing its time to market and total cost of ownership (TCO). Using a pattern-centric approach, Xpriori customers realize a competitive advantage through their ability to deploy high-performance, customizable applications that fully leverage valuable XML information. Please contact Xpriori to find out how we can help you to build XML-centric applications.

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