

*News* **Index**

**dunstanthomas**  
developing e-business



# NewsIndex Case Study

## Overview

NewsIndex wanted to offer their existing clients an on-line interface to their news service that would allow clients to see the day's news and article summaries relevant to them when they logged on the following day. NewsIndex also wanted to expand their channel to market and therefore their client base by taking advantage of the versatility and flexibility of the Internet, which is time zone and location independent.

NewsIndex also hopes that Internet access coupled with the "try-before-you-buy" facility in the subscription service will broaden the profile of NewsIndex's current client base. NewsIndex chose Dunstan Thomas because of the company's expertise in Borland and Java technologies and because Dunstan Thomas had already successfully completed work for them in the past.

## Client Comment

*"Dunstan Thomas really does work at the forefront of technological innovation and they have provided us with a sophisticated and robust on-line information service. The technology that Dunstan Thomas has developed is fast and accurate and integrates well with our existing systems"*

**David Reed, IT Director, NewsIndex**

## Benefits

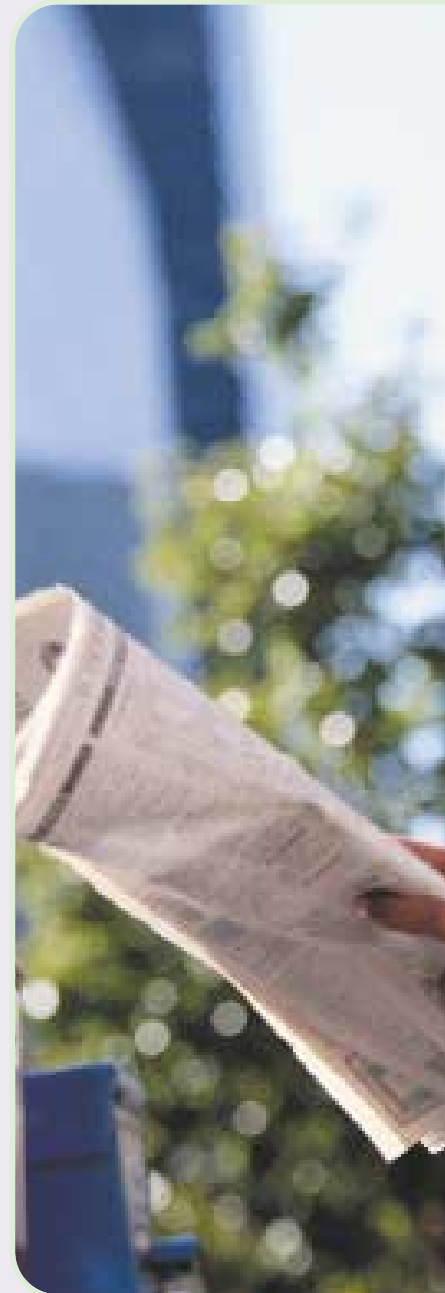
NewsIndex hopes to gain the following benefits from the on-line ordering facility:

- ▶ Expansion of the NewsIndex client base and extension of their client profile.
- ▶ Clients can set up their own briefs and therefore receive press cuttings that are most pertinent to them.
- ▶ Clients can receive emailed reports 24x7 so even when NewsIndex offices are closed, clients can still keep up-to-date with the latest news.
- ▶ Once users register for the service they will be able to build a 'brief' on topics that interest them and view the related news cuttings, both current and historical. There is also an ad-hoc search facility that allows the user to run a search on any topic regardless of whether it is listed in their brief.
- ▶ Clients can decide to order the news article either by fax or email.

## Company Backgrounds

NewsIndex is an express, overnight information service. They specialise in the latest forms of processing and delivery by giving subscribers the day's news at a glance and fully personalised to each user's brief. NewsIndex is the only press cuttings service to offer an index of the day's news together with a summary of articles relevant to the subscriber, allowing clients real choice over their press cuttings and control over costs.

Dunstan Thomas is a leading e-solutions consulting, development and training organisation that provides e-business solutions and services, utilising the latest in cutting edge technologies and recognised "Best Practices." Established in 1986, the company helps its clients transition their businesses to harness the power of knowledge management, business intelligence, CRM, business operations, e-commerce and related enterprise and wireless technologies.





## The Situation

NewsIndex had already built a suite of in-house applications to facilitate their business. The most important of these provides for a team of newsreaders to speed-read articles in newspapers and enter summaries for those articles, along with special codes which relate to what topics the story contains. Other applications perform maintenance tasks and allow NewsIndex staff to perform more extensive one-off searching.

The problem that was faced by NewsIndex was how to expand their operation business in the most effective way. Research had already shown them that an on-line subscription service, with flexible, user-configurable searching facilities, would provide an incentive that many of NewsIndex's current clients would find hard to resist, and which would hopefully win them considerable new business.

When Dunstan Thomas was first called in, it was to solve a database structuring problem. NewsIndex approached Dunstan Thomas to do their web extension work as they did not have the expertise internally to build a cuttings application for the web.

## The Solution

As a design criteria, NewsIndex was keen to avoid any proprietary, closed-source solutions such as any Microsoft technologies. In the event, this was not much of a constraint, as open-source web servers such as Apache and servlet engines like Jakarta-Tomcat provide a highly scalable solution to the problem of providing dynamic web content. This backbone supports JavaServer Pages (JSPs) and servlets, which form a superior mechanism for rendering the content to the more proprietary Active Server Page or CGI script alternatives.

The requirements for the web application were gathered using use-cases, a new concept to NewsIndex, but one that they seemed to find highly intuitive, and it enabled good communication between themselves and Dunstan Thomas. In all, seven use-cases were identified for the application.

Conveniently, these use-cases mapped easily onto groups of web pages. The next question that needed answering, was "Where do we get the data from?" rapidly followed by "Will it be fast enough? NewsIndex used InterBase for their main database, and they understandably preferred to keep to this for maintenance and management reasons. Dunstan Thomas did some performance testing comparisons to see what the possibilities were, and NewsIndex was more than happy at the rendering speeds with InterBase.

Dunstan Thomas designed the solution in Java using a modified Model View Controller architecture, with the JSP / servlet front-end providing the view. New tables were added to the existing database to support web users of the system, but other than that, integrating the web front end has caused no impact on the other systems that NewsIndex uses.

The system has been kept flexible and simple, an easy task with Java technologies, so that expansion of the system, for example by changing the back-end database, will be possible without whole-scale redesign.

## Technology and Development

The site runs on a Linux operating system employing JavaServlet and (JSP) JavaServer Page technologies via Tomcat. The web server being used is Apache.

The database is InterBase 6.0. InterBase is currently being used by the company's existing applications and it is intended that the web site will integrate seamlessly with their current environment.

JavaServer Pages™ technology allows web developers and designers to rapidly develop and easily maintain, information-rich, dynamic web pages that leverage existing business systems. As part of the Java™ family, JSP technology enables rapid development of web-based applications that are platform independent. JavaServer Pages technology separates the user interface from content generation enabling designers to change the overall page layout without altering the underlying dynamic content.

JavaServer Pages technology is an extension of the Java™ Servlet technology. Servlets are platform-independent, 100% pure JavaServer-side modules that fit seamlessly into a web server framework and can be used to extend the capabilities of a web server with minimal overhead, maintenance, and support.

Together, JSP technology and servlets provide an attractive alternative to other types of dynamic web scripting/programming that offers platform independence, enhanced performance, separation of logic from display, ease of administration, extensibility into the enterprise and most importantly, ease of use.



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