

# The Broden Chronicles

## Featuring HumanaPress.com, a Case Study



## Revamped HumanaPress.com Increases Sales Over 100%!

When the folks at The Humana Press, Inc. commissioned the Broden team to give their site a facelift, no one imagined the growth the site would experience in just six short months of operation. Hu-

manaPress.com is already seeing more than double the sales over its predecessor! Almost a million hits were logged during April 2002 and over 1,000 users are signing

up to use the site each month—either to place



an order or make use of the free content search and preview available.

Site construction was based on Broden's proven iRAD.NET development methodology.

As such it can continue to handle increased load for years to come. New features have been added in each of four enhancement releases thus far—The site is extremely stable with virtually no unscheduled downtime since launch.

We invite you to take a look behind the scenes in the making of HumanaPress.com, from design to deployment.

## Microsoft Commerce Server 2000 at the Core

Microsoft Commerce Server 2000 was chosen early on as the foundation upon which to build HumanaPress.com. Commerce Server is Microsoft's .NET Server for e-Commerce sites. It is a well tested and proven frame-

work for B2C or B2B web sites. Commerce Server is basically a set of tools and components to manage the entire order process—from presenting products to users, to basket/shopping cart management, to calculating order total with shipping

costs, tax, and discounts. Commerce Server is fully customizable and very flexible—this makes it possible to accommodate all the specific business rules that come with a company's order process.

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### HumanaPress.com

- E-commerce site Offering scientific and medical books and journals
- Launched Nov. 2001
- Designed and developed by Broden in close cooperation with Humana Press
- 1 million hits/month
- 1,000 new registered users/month
- Sales up over 100% in 6 months
- ROI under 18 months
- Registered users from over 60 countries

## “What a Professional Look!”

Time and time again the site has been praised for its professional look and feel. This is no accident. Broden’s professional graphic artists, along with its engineering group worked closely with designated Humana Press employees to come up with a color scheme and

navigation method that would be user-friendly.

Other e-Commerce sites were studied, particularly book retailers. Combinations of color schemes and navigation models (Menu at top, on side, nested menus, etc.) were crafted and reviewed

by all. Mockup HTML pages were studied on different monitors and computers running different operating systems to catch subtle differences. Even printouts were evaluated for their look.

The three best layouts were then voted on by all Humana Press employees, and the winner was selected! Details of the final selection include: Header at top in a white background, Main menu at top in blue ovals, with sub-menus below, alternate navigation in bubbles at left, that can be assembled based on current menu selection.



## A Satisfied Customer

For Broden to take pride in its work, the customer must be satisfied. A number of measures are taken early on and through development to insure that the end product is what the customer wants. In this case, the existing web site was studied exhaustively. What features did Humana want to preserve? What did Humana like and not like about the site?

Next a quick prototype of a fully functional e-commerce site was presented to Humana, and once again, likes and dislikes were identified.

Finally, features are agreed upon for

**“I am extremely pleased with the success of the site—You [Broden] are highly skilled at what you do—Is there anything you can’t do?” - Thomas B. Lanigan, Vice President, The Humana Press, Inc.**

each release of the site, and Humana folks are given an opportunity to preview and test the release on specially configured demo servers across the Internet. For releases with large feature sets, a conference call outlining the new functionality precedes such a test ‘jam session’, and a conference call to gather feedback follows.

The key is to learn the customer’s needs and expectations as early as possible.

## Administrative Features

Empowering Humana to make key changes to the site’s parameters was a goal from the start. Microsoft Commerce Server’s Business Desk, a browser based application, makes it possible to remotely manage an e-commerce site. The following is a sampling of items Humana can take ownership of and manage independently (The product catalog is managed in a legacy database—see article on next

page):

- Countries and regions permissible for addresses
- Tax rates, by region or country
- Shipping methods and costs
- Online Journals available for viewing
- Discounts
- Promotions

Also a number of reports can be produced right from Business Desk including profile data on all registered Users.

A custom set of pages were designed to monitor site activity—these quick loading pages show a sortable summary of site activity by day or month, including metrics such as: Hits to the site, New users registered, orders taken, PDF’s downloaded, and much more.

# XML, XSL and All That Jazz

OK, so you're convinced that the site looks sharp and is well received. What's the technology under the hood, you ask? HumanaPress.com is based on a sample Commerce Server site developed by Microsoft known as the Reference Architecture for Business to Consumer. Many of the techniques showcased in this site were carried forward as it was customized to meet Humana's needs. Broden provided feedback to Microsoft's Prescriptive Architecture Guidance group (responsible for the product), and received a number of tips as well.

A noteworthy feature of the site is the process involved in producing the HTML output for any given page. Traditionally ASP pages inter-

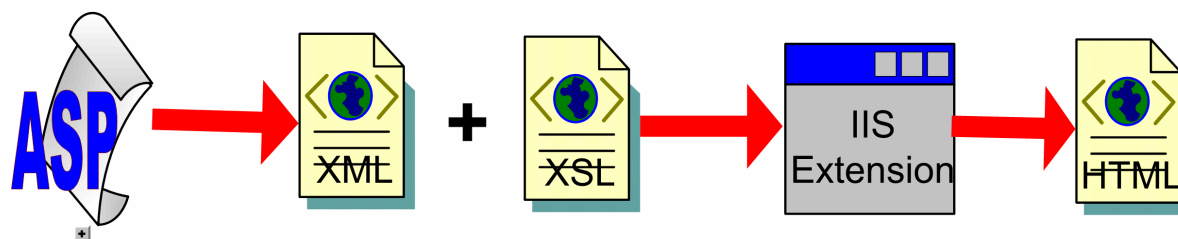
act with server-side components and emit the final HTML output in the process. In this case, the ASP pages emit their core content as XML, and this XML memory stream is then merged with an XSL file which outputs the final HTML (See illustration below). XSL stands for Extensible Style Language and is a language that converts XML into something else—in this case, HTML, before returning it across the Internet to the browser.

What are some benefits of this approach? For one thing, user interface logic and elements are further separated from business processing (They are already separated, since all core business code is in components) - Since the ASP pages some-

times do a lot of processing in their interaction with components, this code can get cumbersome to maintain. By splitting the HTML presentation part into an XSL sheet, a page's function is split (ASP for initial stage page processing, and XSL for presentation) - this reduces the code on the ASP page and improves maintainability.

Since the look of the site is all contained in a set of XSL pages—with common elements like header and sidebar menu in shared XSL files—changing the look of the site is also a more manageable task.

Commerce Server's own objects use and emit XML. So, all in all, the site makes innovative and productive use of XML and XSL.



## Preserving Legacy Data Store

In almost all database systems, some import or export processes to legacy data stores are required. HumanaPress.com is no exception. A key requirement of the system was to preserve Humana's product catalog in its native format...several FileMaker Pro databases.

Microsoft Commerce Server's XML import is an excellent way to import

data from external sources. A program was written to export data from the various FileMaker Pro databases into an XML file, suitable for consumption by Commerce Server. The XML file itself contains data for both Catalogs—Books and Journals, and the program performs the entire process from producing the file, to kicking off Commerce Server's merge import (Existing items are updated, and new ones added), to

sending out emails on any new titles to those who want to know the minute a new Book in a given category is published.

Now, Humana data entry personnel can continue to keep their catalog in its native format, and existing systems and reports can continue to rely on it.

# Sample HumanaPress.com Online for Yourself.

This month's newsletter is an in-depth look at HumanaPress.com, Broden's latest e-Commerce site launch. HumanaPress.com is an online book store where The Humana Press, publishers of books and journals for the scientific and medical community, can retail their own products.

Users can browse products, place items in their basket, and check out and purchase items there and then, choosing to be invoiced for

them through the mail (for payment by check or money order), or pay by credit card and receive shipment ASAP.

It is impossible to fully describe the scope of the project in print. After reading the case study, we invite you to try the site for yourself. Go ahead and run some "quick searches" from the Search box in the upper left. Notice how you can view Books, 10 on a page, and how you can resort the

list any number of ways. Take note of the performance of the site—then remember that thousands of others around the world use it each day.

Change the search combo box to "Entire Site" and search through gigabytes of free-online content. Go ahead and register to view some of the PDF's in the search results. You can even order a free sample journal issue to experience the entire order process!

## A Full Service Solution

HumanaPress.com is hosted by Broden at a secure accredited hosting facility. The hosting facility provides a T3 line to make the site as responsive as possible even during peak usage times. In addition they provide uninterrupted power supplies (UPS) that kick in in the event of power failures.

Broden has put in place all the necessary procedures to keep the site functioning, including regular database backups.

Broden's Systems Group monitors activity in and out of the .com sites including emails.

A custom built monitoring system is in place that informs Broden personnel (via email, cell phone and direct-dial beeper) as soon as a site or critical service malfunctions. For cross checking purposes, this monitoring service runs from both inside the hosting facility and from Broden's offices.

## How May We Help You?

Broden, Inc., has been in business since 1985 and delivers information technology services to businesses throughout the world. From desktop systems built in Microsoft Access and other Office applications, to client-server apps built with Visual Basic and SQL Server, to distributed Internet Sites—these are Broden's expertise. Whichever your need, be it maintenance on an existing program or new development, Broden's experienced

and Microsoft certified employees are up to the job. All are skilled in analysis and design, and are focused on delivering a robust system that meets your needs and grows with you.

Please visit our web site [www.broden.com](http://www.broden.com), for other success stories. Why not contact us for a free analysis? Our Sales Manager will be happy to meet with you and assess your IT needs.



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