



## Overview

**Country or Region:** United States  
**Industry:** Real Estate

### Customer Profile

Tishman Speyer is one of the leading owners, developers, and operators of first class real estate in the world.

### Business Situation

Previously, Tishman Speyer was using Documentum's Content Server product for its content management needs. However, as the Tishman Speyer organization is continually evolving and expanding, it has outgrown its Documentum solution.

### Solution

The Henson Group assisted this client by providing highly specialized advanced configuration and custom Web Part development services to leverage Windows SharePoint Services as a replacement for Documentum's Enterprise Content Management (ECM) technology.

### Results & Benefits

The Henson Group successfully achieved the client's objectives, delivering the following benefits:

- Reliable and Scaleable Platform
- Reduced Complexity & Cost
- Advanced Security & Administrative Control
- Better Discoverability
- Better Communication
- Better Team Processes
- Better User Experience

## MAJOR US REAL ESTATE GIANT REQUIRES ADVANCED CONFIGURATION TO EXTEND WINDOWS SHAREPOINT SERVICES

Windows SharePoint Services Advanced Configuration & Custom Web Part Development

*"This project was significant because the customized Windows SharePoint Services (WSS) web parts that were built greatly improved existing navigational features that WSS provided out-of-the-box. This provided a solution to quickly access the large number of documents in its company via an intranet, a major deciding factor in migrating Tishman Speyer's existing document library from Documentum's Content Server Portal to WSS."*

— James Casas, Principal Consultant/Project Lead, The Henson Group

Microsoft Gold Certified Partner The Henson Group, Inc. (THG) provided expert configuration and custom Web Part development services to assist client Tishman Speyer in leverage Windows SharePoint Services (WSS) as a replacement for Documentum's Enterprise Content Management (ECM) technology.

### BUSINESS SITUATION

Tishman Speyer is one of the leading owners, developers, and operators of first class real estate in the world. Since its founding in 1978, the company has acquired or developed a portfolio of more than 76 million square feet, valued at more than \$20 billion. Tishman Speyer's reputation for globally recognized properties includes such well-known icons as New York City's Chrysler Building and Rockefeller Center, London's Millbank Tower and Tower Place, Frankfurt's MesseTurm, and other prominent properties in major European cities.

Considering the scope and scale of its business in the high-end real estate sector, Tishman Speyer has always had need of an Enterprise Content Management (ECM) system.

Essentially, ECM refers to any of the strategies and technologies employed in the information technology industry for managing the capture, storage, security, revision control, retrieval, distribution, preservation and destruction of documents and content. ECM especially concerns content imported into or generated from within an organization in the course of its operation, and includes the control of access to this content from outside of the organization's processes.



*For an enterprise with demanding content management needs such as Tishman Speyer, ECM is not regarded as an optional expense...*

ECM systems are designed to manage both structured and unstructured content, so that an organization, such as a business or governmental agency, can more effectively meet business goals (increase profit or improve the efficient use of budgets), serve its customers (as a competitive advantage, or to improve responsiveness), and protect itself (against non-compliance, law-suits, uncoordinated departments or turnover within the organization).

For an enterprise with demanding content management needs such as Tishman Speyer, ECM is not regarded as an optional expense, where it is essential to have content preservation and re-usability, and to have the control of access to content - whereas, very small organizations may find their needs temporarily met by carefully managed shared folders and a wiki, for example.

Recent trends in business and government indicate that ECM is becoming a core investment for organizations of all sizes, more immediately tied to organizational goals than in the past: increasingly more central to what an enterprise does, and how it accomplishes its mission. (SOURCE: AIIM Industry Watch: State of the ECM Industry ©2006 AIIM – "The ECM Association Moving from Why? To How?: The Maturing of ECM Users")

For Tishman Speyer, an ECM system is most valuable for storage and single sourcing of documentation for the firm, including, but not limited to, contracts and other documentation related to the management of its properties and its realty transactions.

Previously, Tishman Speyer was using Documentum's Content Server product for its content management needs. However, as the Tishman Speyer organization is continually evolving and expanding, it has outgrown its Documentum solution. For instance, Tishman Speyer was dissatisfied with Documentum's limited web capabilities and the fact that users needed a client application installed on their workstations to access the system.

Meanwhile, there were increasingly expensive per-user licensing issues that were hampering scalability.

So, Tishman Speyer started combing the IT industry looking for alternatives.

Founded by Howard Shao and John Newton, Documentum was acquired by EMC Corp. in 2003 for a reported \$1.7 billion to add the content management platform to its menu of software and services.

More recently, content management has been seen as a key growth area for the software industry over the past few years, spurred by events such as the Enron fiasco and the Sarbanes-

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Oxley Act that drove interest in centralized document retention processes.

To date, the market has been split among specialists, such as Documentum, Interwoven and Open Text, and technology generalists such as IBM that offer content management as a part of broader enterprise systems.

Gartner, a leading industry analyst firm, estimates that by midyear 2006, 50 percent of ECM vendors will merge or be acquired (0.6 probability). According to Gartner, by 2008, 75 percent of Global 2000 companies will have a desktop-focused and a process-focused content management implementation (0.9 probability) and ECM will continue to absorb other technologies, such as digital asset management and e-mail management. Gartner also predicts that there will be further market consolidation, acquisition and separation of vendors into platform and solution providers.

One technology giant unlikely to join any acquisition frenzy is Microsoft. The software megalith has already settled on a content management strategy that emphasizes small and midsize businesses, rather than the enterprise-level customers Documentum target.

The Microsoft approach is based on SharePoint, a collection of technologies for controlling access to centrally stored documents. Basic SharePoint services are available as a free add-on to Windows Server 2003, while more complex functions, such as text searching, require additional server-based products.

Now shipping as part of Windows Server 2003 R2 or available for download at no additional charge, Microsoft Windows SharePoint Services (WSS) technology in Windows Server 2003 is an integrated portfolio of collaboration and communication services designed to connect people, information, processes, and systems both within and beyond the organizational firewall.

After taking a more careful look at WSS, Tishman Speyer IT executives realized the technology offered the functionality it required, and at no additional cost, considering it is a component of the Windows Server 2003 OS it already owned.

As a free add-on to Windows Server 2003, WSS offers basic web portal and intranet functionality, including portal pages called web part pages made up of web parts (developed in ASP.NET), team, document or project sub-sites, version-controlled document storage, and basic search functionality. It is made up of an ASP.NET web site hosted on Internet Information Services 6.0, using a Microsoft SQL Server or Microsoft SQL Server Desktop Engine (MSDE) database back-end to store data.

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*- Casas*

“In addition, because WSS takes advantage of these well-known Microsoft technologies, developers can use tools that are already familiar to them such as Visual Studio to build custom web parts using languages like VB.NET or C#,” Casas says, “making the process of building these web parts and customizations much easier to code and maintain than learning a 3<sup>rd</sup> party proprietary language and/or toolset.”

WSS also forms the basis for Microsoft Office SharePoint Portal Server and Microsoft Office Project Server. Portal Server is the enterprise layer (not free) that is built upon Windows SharePoint Services.

However, Tishman Speyer’s IT professionals were not ECM or SharePoint deployment experts. In order to truly leverage the technology, Tishman Speyer needed an outside consulting organization that specialized in SharePoint technology to provide the configuration and custom Web Part development to achieve the functionality needed to replace and improve upon the incumbent Documentum technology.

Responding to a request, Microsoft introduced Tishman Speyer to The Henson Group.

The Henson Group is an award-winning Microsoft Gold Certified Partner officially designated by Microsoft for SPS deployments.

The Henson Group also possesses Microsoft’s official Business Process and Integration Solutions Competency, for proven proficiency in implementing and deploying server-based portals for driving Internet commerce, and business process applications.

The Henson Group offers a dedicated Information Worker Practice specializing in both small- and large-scale Microsoft SharePoint and Project Server deployments, providing a comprehensive array of services including logical and physical site architecture, customization, advanced configuration, process consulting, accredited training, custom application development, and much more.

The Henson Group is also consistently highly ranked on Microsoft’s official Resource Directory (<http://directory.microsoft.com>) for SharePoint engagements and achieved Microsoft’s official Information Worker Solutions Competency by demonstrating an expert-level Microsoft Project-related abilities, maintaining a roster of Microsoft Certified Consultants with applicable experience, and producing numerous client references to objectively testify to its abilities.

What this meant for Tishman Speyer was that The Henson Group had the resources, project experience, and proven technical ability to achieve its objectives.

*At the point The Henson Group entered, Tishman Speyer IT executives were in the process of migrating documents over to WSS from Documentum...*

## **SOLUTION**

The first version of Windows SharePoint Services, called SharePoint Team Services (a.k.a. STS), was released at the same time as Office XP and was available as part of Microsoft FrontPage. STS could run on Windows 2000 Server or Windows XP. *(The only things it had in common with SharePoint Portal Server 2001 were some common graphical images and styles.)*

Version 2.0, Windows SharePoint Services, was marketed as an upgrade to SharePoint Team Services, but was in fact a completely redesigned application taking advantage of the Microsoft's .NET 1.1 Framework. This was the iteration of the technology that Tishman Speyer deployed.

Key differences in document storage facilities differentiated the two products. SharePoint Team Services stored documents in ordinary file storage, while keeping document metadata in a database. WSS stores both the document and the metadata in a database. Document versioning was not supported in SharePoint Team Services, while WSS supports basic document versioning.

At the point The Henson Group entered, Tishman Speyer IT executives were in the process of migrating documents over to WSS from Documentum and required strategic instruction and planning for optimal usage of some of the out-of-the-box resource tools.

The two document library migration tools include Spout.exe and Spin.exe. Spout.exe, the Document Library Export Tool, is a Microsoft Windows program that reads Web Storage System-based document libraries and exports (or outputs) the selected content as a collection of files in a format that is understood by the import program. Spin.exe, the Document Library Import Tool, is a Windows command-line program that reads the collection of files created by Spout.exe and adds the documents and associated descriptive information to the selected portal area, portal site, team site, or personal Web site on the server running SharePoint.

More challenging was assisting in the configuration of document library hierarchy of Tishman Speyer's WSS solution to achieve the document management structure it needed to map accordingly with its processes.

Creating a functional hierarchy in SharePoint Portal Server is key to accomplishing an effective collaboration structure.

A site collection is comprised of the top-level sites and any subsites created below it. Subsites are sites and workspaces created under the top-level site. The Site Administrator manages the subsite, and has access to anything below it in the hierarchy. Each time a subsite is created, a Site Administrator is assigned. *(The person creating the site.)*

*However, what WSS does not offer out-of-the-box is a “Tree View” style configuration that Tishman Speyer required to ease the manageability and navigation of its vast number of document libraries.*

A subsite can be a team site, project site, meeting workspace, or document workspace. Subsites and workspaces are both websites. Each subsite or workspace is built from one of eight templates. Each template is basically a website with certain features and webparts. WSS also supports the creation of custom site templates. You can customize a site or workspace using FrontPage 2003 and then save the site as a site template. Each subsite can have independent administration, authoring, and browsing permissions from the top level or other WSS sites. Hierarchy plays a big part in the proper design in WSS. In many cases, an improper hierarchy can cause confusion and in some cases—a non-functioning site.

However, what WSS does not offer out-of-the-box is a “Tree View” style configuration that Tishman Speyer required to ease the manageability and navigation of its vast number of document libraries.

“This was really a critical factor in their ability to use WSS, because they have literally hundreds of subfolders within each doc library,” Casas says. “Without this type of view, they would have substantial productivity problems as their professionals would have to wade through drilling down layer after layer of sub-folders, just to view files.”

To achieve the functionality required, Casas created two custom Web Parts. SharePoint Web Parts are small pluggable units that can generate individual views of data, lists, and alerts. Personalization is more than the option to show, hide, or collapse a canned Web Part; it's also the ability to set individual values and parameters, save them, and restore them at the next logon.

While SharePoint Web Parts “out-of-the-box” can provide a wealth of features, to achieve the level of functionality Tishman Speyer sought — drawing data from a SQL Server 2000 database to feed a dynamic ECM application — for this Web Part it required application development experts experienced at leveraging the .NET Framework.

Meanwhile, Tishman Speyer also required a comprehensive site map.

“This labyrinth of document libraries produces a Site Map that only offers view of the top-level libraries,” Casas explains. “What Tishman Speyer sought was Site Map that not only provided a central view of top-level libraries, but one that offered a tree-view that provide visibility of all sub-sites, drilling all the way down.”

“To supplement this, an additional Document Treeview web part was created for users to view the actual documents themselves once they navigated to one of these sub-sites,” Casas says. “This again added benefits as you can still create sub-folders within sub-folders at the sub-site level. This provided an area where you can click, view, and work.”

In developing this Web Part, Casas also had to build in security features providing limited access, based on permissions, “So, the site map itself had to code permissions in it, and again that was another challenging, but vital feature they needed to make this solution makes sense for their business,” he adds.

Meanwhile, WSS does provide an extensive list of features for enhancing collaboration and workflow while protecting documents and intellectual property. And, while WSS functionality advances with each subsequent release, one feature that is noticeably absent is a Recycle Bin-type function to back up and restore deleted files from document libraries.

*(Note: This shortcoming was addressed in development of the latest iteration of the technology, Microsoft Office SharePoint Server 2007, which does offer Recycle Bin capabilities.)*

“Inevitably, this meant that once a user deletes a document on SharePoint, it was gone forever and for an enterprise so reliant on its documentation, this lack of recovery functionality was a major obstacle,” says James Chang, Senior Consultant, The Henson Group.

To address this challenge, The Henson Group did set about searching for a solution. Microsoft offers a remedy, as do several third parties. However, all of these possibilities introduced a new challenge.

“They required a mirror database scenario, which would incur the costs and management issues associated with supporting yet another database,” Chang says. “We also considered a custom solution that placed the deleted documents on a local directory on an [Internet Information Services] web server, but that had conflict issues with the client’s environment.”

Finally, The Henson Group struck upon a solution that leveraged database triggering. A database trigger is a stored procedure that is invoked automatically when a predefined event occurs. Database triggers enable DBA's (Data Base Administrators) to create additional relationships between separate tables or databases. For example, the modification of a record in one database could trigger the modification of a record in a second table or database.

“Essentially, what happens is that when the delete command comes in, the trigger is activated to grab the file and save it elsewhere,” Chang explains.

Lastly, Tishman Speyer IT executives also indicated they wanted a function to not just back up and store the deleted files, but a way to view, sort, search and inevitably, purge them. And, keep in mind that the application had to address the versioning features of SharePoint where often multiple iterations of the same document exist.

“As the .NET 2.0 Framework was also installed on the WSS server, we therefore took this to our advantage and created an ASP.NET 2.0 application that basically handled all administration of these deleted files, so between the Database Trigger and this Admin Application, we were able to provide a complete solution.”

## RESULTS & BENEFITS

The Henson Group exceeded Tishman Speyer’s expectations, providing all of the custom configurations required and delivering a solution that provides the following benefits today:

### *Benefits for Tishman Speyer IT Professionals*

Built on the Windows Server 2003 platform, Windows SharePoint Services makes it easy for IT professionals to implement a dependable, scaleable collaboration infrastructure, using straightforward administrative tools and services. IT administrators will benefit from the following:

- **Reliable and Scaleable Platform**

Whether deployed on a single server supporting a small organization or in a large enterprise with tens of thousands of sites and thousands of users, Windows SharePoint Services provides a cost-effective, scaleable collaboration and information sharing solution, without compromising system reliability, security, or performance.

- **Reduced Complexity and Cost**

The rich, built-in functionality and ease of use of Windows SharePoint Services gives IT administrators the means by which to decrease the cost and complexity associated with site provisioning, site management and support, operations, and backup and restore. Moreover, because Windows SharePoint Services is so easy to extend as an organization grows, as well as easy to integrate with a variety of applications and systems, it is possible to build a collaboration environment with minimal administrative time and effort.

- **Advanced Security and Administrative Control**

Windows SharePoint Services is fully integrated with Windows Server 2003, enabling administrators to benefit from the rich functionality offered by such services as Active Directory, Live Communications Server, and MSN Connect. Centralized administration, effective data life-cycle management, and improved network and site performance are just some of the benefits administrators will enjoy.



## About The Henson Group

A Microsoft 2007 Partner of the Year, The Henson Group is a "Gold Certified Partner" founded by former Microsoft engineers in 2002, specializing in enterprise deployments and .NET development of Microsoft products that overcome today's business challenges.

The preferred solution provider for many US and international corporations, The Henson Group leverages direct ties to the Microsoft product groups, is a preferred subcontractor of Microsoft Consulting Services, holds a seat on the national Microsoft Partner Advisory Council, and is recognized among the top US consultancies in Microsoft's partner community (Microsoft's "Solution Finder").

## *Benefits for Tishman Speyer Users*

Windows SharePoint Services provides the following advantages to the individuals and teams who use it:

- Better Discoverability

Finding and accessing information across a distributed workplace is a major challenge for which Windows SharePoint Services offers an effective solution. By providing users with a single Web-based team environment and built-in search capabilities, Windows SharePoint Services helps users to find information more effectively than with traditional file shares.

- Better Communication

With the built-in alert capabilities of Windows SharePoint Services, users can be notified when changes are made to shared information. Microsoft Office Live Communication Server provides users with the means to communicate instantly, whether by video or audio, and Microsoft Office Live meeting enables users to communicate and collaborate with anyone.

- Better Team Processes

The process of document creation and review is made simpler and more effective with built-in document versioning plus check-in and check-out capabilities. Additionally, using Windows Rights Management Services, authors can determine how their documents are distributed and used by others.

- Better User Experience

By integrating Web-based team collaboration services into everyday tools such as Microsoft Office, users can quickly and effectively adopt new collaboration tools and services. And by providing Web-browser access, Windows SharePoint Services makes it easy for users to access team information through a single site on demand.

Meanwhile, with Microsoft Office SharePoint Server 2007 (MOSS) planned for release in 2007 as part of the Office 2007 suite and Windows Server "Longhorn" expected to include many new features, such as mobility, RSS, wiki, weblog, and much improved navigation, Tishman Speyer is currently evaluating an upgrade to MOSS 2007 to extend this success into a true enterprise portal.

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Document published December 2007.