



KnowledgeLake®



KnowledgeLake Connect 2008

Microsoft SharePoint integration for any application

A KnowledgeLake White Paper

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Executive Summary

Microsoft SharePoint Products and Technologies have emerged as a successful new breed of Enterprise Content Management (ECM) software. This whitepaper is aimed at organizations that have implemented SharePoint and are interested in creating even more information worker productivity through the use of clever new technology.

Today SharePoint is successful due to its low cost, extensive capabilities, and tight integration with Microsoft Office. Electronic document management capabilities are at the core of SharePoint and are the primary critical component of any successful ECM solution. This whitepaper will discuss the challenges with deploying production electronic document management and how KnowledgeLake Connect greatly enhances SharePoint's native ability to acquire and manage electronic content.

KnowledgeLake Connect is built around core SharePoint API's. This paper uses the term "SharePoint" as a broad definition for many forms of the same technology that KnowledgeLake Connect supports. KnowledgeLake Connect currently supports the following Microsoft products:

- Microsoft Windows SharePoint Services 2003 (WSS 2.0)
- Microsoft Windows SharePoint Portal Server 2003 (SPS)
- Microsoft Windows SharePoint Services 2007 (WSS 3.0)
- Microsoft Office SharePoint Server 2007 (MOSS 2007)
- Microsoft OfficeLive (MSOL)

Finally, this paper will describe to readers an easy solution from Fujitsu that allows users to enjoy many of the benefits of KnowledgeLake Connect when bundled with a Fujitsu document scanner.

1. The Eternal Struggle of Electronic Document Management

Electronic Document Management (EDM) has been a lofty but mostly unattainable goal of every organization since the original creation of the word processor. Why has it been unattainable? Frankly put, it is really just too much trouble. Users find it much easier to randomly save documents to their local hard drive even when EDM software is at their fingertips. The promise of being able to locate easily documents through a search interface or access documents via the web browser typically does not outweigh the day-to-day pain of having to manually import documents and painstakingly add metadata properties. This labor is what would eventually create the benefits that all users desire and some organizations require.

Today, SharePoint users who have Microsoft Office 2007 enjoy robust integration and are presented with the metadata in a ribbon bar to index each document. These users also enjoy the fact that Microsoft Office 2007 connects to SharePoint via web technology and allows them to directly save their documents to SharePoint much like saving to the local hard drive. This integration works the same whether the user is attached to the SharePoint server locally or remotely via the internet. Users who create document content using any other application are required to perform the following manual steps to save a document into SharePoint.

- Save the document locally
- Open the browser
- Navigate to the proper SharePoint site
- Provide login credentials
- Choose the proper document library and folder
- Upload the document which requires navigating back to the document in the file system
- Edit the document properties to apply the proper indexing information

These challenges however are not unique to SharePoint. All other ECM systems struggle with the same set of issues. The others use complex macro integrations which must be managed on each user's desktop. These macros must be created and managed not only for each application, but for each version of each application.

Simply put, the struggle is to provide tight integration to all of the user's desktop applications directly to the ECM system. Furthermore, to provide stable, low maintenance desktop integration to any application without complex macros or custom programming.

Enter KnowledgeLake Connect...

2. Value Proposition

KnowledgeLake Connect allows any desktop application to tightly integrate with SharePoint. This tight integration provides organizations the following benefits:

- Creating additional information worker productivity
- Allowing users to easily add metadata insures that all content will be easier to find later – no lost documents
- Ease of use helps mitigate business and legal risk by insuring that documents are stored in a central and secure location

The following list of features and benefits create the overall value proposition of KnowledgeLake Connect:

2.1 Saving Documents

Connect allows any desktop application to save documents directly to SharePoint. Specifically, any application that can save a file to the file system can save directly to any SharePoint document library with the user prompted for any required metadata configured in SharePoint. This allows any application to function much like Microsoft Word 2007, to be tightly integrated with Microsoft SharePoint. KnowledgeLake Connect does this by creating a "hot folder" called "My Connect Cache" in the user folder. Any file saved to this folder initiates the Save process in KnowledgeLake Connect. We have found this very beneficial for adding document imaging functionality to SharePoint. KnowledgeLake Connect on the user's desktop plus Microsoft Office Document Imaging creates an extremely functional document imaging system. Greater filing scalability will be achieved by turning on the "AutoFolder" feature of KnowledgeLake Connect by right clicking on a site. This feature automatically saves the user's documents nested in a series of folders by date and time. This eliminates the 2000 folder SharePoint limitation (as stated by Microsoft).

2.2 Editing Documents

Connect allows the user to seamlessly save documents back to SharePoint after opening. This seems obvious, but a (non-Office) file opened from SharePoint is downloaded to the user's local hard drive in the "Temporary Internet Files" folder. Once a user has changed the document, they must manually save that document back to SharePoint which requires many, many steps. KnowledgeLake Connect eliminates that requirement by monitoring the "Temporary Internet Files" folder and automatically saving changed documents back to SharePoint. This can be configured by file type. Most common file types are .PDF, .TIF, .DWG, etc. This functionality is somewhat dependent on the application; we have found however that almost all applications function perfectly.

2.3 Microsoft Outlook Integration

Users can save e-mail messages (with included attachments) directly to SharePoint by clicking the "Send to SharePoint" button on the Outlook 2003/2007 toolbar that KnowledgeLake Connect provides.

2.4 Send To

Connect provides a Windows "Send To" function for easy SharePoint integration from any Windows application that has a "Send To" interface.

2.5 Browse To

Connect allows the user to very easily navigate to a specific site, document library, or specific folder by right-clicking on the tree in KnowledgeLake Connect and choosing "Browse To". This function creates tremendous productivity by putting all of the user's needed sites, libraries, or folders directly at their fingertips.

3. How KnowledgeLake Connect Works

KnowledgeLake architects and engineers were challenged to create a solution to a very difficult problem – seamlessly integrating ANY application with Microsoft SharePoint. Oddly enough – the solution was the file system. While many applications have the ability to be customized using macros, scripting languages, custom API's, etc., all of them have one single thing in common, the ability to save a file.

Upon installation KnowledgeLake Connect creates a folder in the users folder called "My Connect Cache". When Connect is running it is continually watching this folder for files to arrive. As an application saves a file to "My Connect Cache", Connect wakes up and prompts the user to select a site, library or folder and for the any needed indexing data.

When any file is launched from SharePoint, it is automatically downloaded to the "Temporary Internet Files" folder on the user's local hard drive. Again, Connect continually watches this folder for changes. As the files are saved, Connect migrates the changes back to SharePoint without any user intervention. This creates the same seamless functionality provided by Microsoft Office 2007 for any desktop application.

Once you understand the fundamental underpinnings of how KnowledgeLake Connect works, it is easy to understand how some of the ancillary features work. For example, the button added to Outlook 2003/2007 simply saves the highlighted e-mail file (.MSG) to the "My Connect Cache" folder. Connect simply takes over from there. The Send To integration functions the exact same way.

KnowledgeLake Connect communicates with SharePoint using the exact same Remote Procedure Calls (RPC) as Microsoft Office 2007. This insures that your documents are ultimately being saved using well tested and debugged code written by Microsoft. KnowledgeLake Connect (like Office 2007) works seamlessly with SharePoint whether local or over the public internet.

KnowledgeLake released version 1 of Connect in July 2005 after a rigorous design and beta testing program. Now three years later, Connect v3.x is being used by thousands of customers worldwide in home offices, small businesses and in many Fortune 1000 enterprises.

4. Fujitsu “Scan to Microsoft SharePoint”

4.1 Overview

KnowledgeLake is partially owned by PFU Limited (a Fujitsu subsidiary) and has a very close working relationship with Fujitsu and its many subsidiary companies. In 2007, KnowledgeLake entered into an OEM agreement with PFU Limited so that they could distribute a “lite” version of KnowledgeLake Connect with all Fujitsu scanner products. This “lite” version is named “Scan to Microsoft SharePoint” or herein “S2MSP”. This bundling is currently happening with the Fujitsu ScanSnap products and by late 2008 all Fujitsu scanner products will be bundled with S2MSP. S2MSP is built on the same code base as KnowledgeLake Connect and has the same user experience. S2MSP can also be easily upgraded to full connect with the proper Connect activation code available from KnowledgeLake.

4.2 S2MSP Features

S2MSP is purely focused on being a “SharePoint onramp” for Fujitsu scanner products. In short, all Fujitsu scanners will soon come bundled with full SharePoint integration right in the box. With S2MSP users are given many of the benefits of KnowledgeLake Connect, but the following functionality is not available in S2MSP:

- Editing Documents – S2MSP does not support the “automatic” update of saved documents opened from SharePoint. Again, S2MSP is focused on “onramping” content to SharePoint.
- Outlook Integration – S2MSP does not contain Microsoft Outlook integration for saving e-mail to SharePoint
- File Types – S2MSP only supports the saving of PDF, TIF and JPG files to SharePoint

Conclusion

Microsoft has created a truly world-class ECM platform with SharePoint. It is well documented that Microsoft greatly relies on Independent Software Vendors (ISV's) such as KnowledgeLake to fill the gaps left in their platform technologies to create solutions to business problems. KnowledgeLake has years of experience in creating ECM solutions for organizations large and small. KnowledgeLake Connect is just one example of a creative and innovative application designed to greatly enhance information worker productivity by allowing any desktop application to directly integrate with SharePoint. Connect is in many ways just like SharePoint... solid, cost effective technology designed to change the world for the common user.

Appendix A: System Requirements

Desktop System Requirements:

Microsoft Windows Vista
Microsoft Windows XP Professional
Microsoft Windows 2000 Professional
Microsoft .NET Framework v2.0 or greater
Microsoft Internet Explorer v5.1 or greater

Server System Requirements:

Microsoft Windows SharePoint Services 2003 (WSS 2.0)
-or-
Microsoft Windows SharePoint Portal Server 2003 (SPS)
-or-
Microsoft Windows SharePoint Services 2007 (WSS 3.0)
-or-
Microsoft Office SharePoint Server 2007 (MOSS 2007)
-or-
Microsoft OfficeLive (MSOL)

Note: KnowledgeLake Connect does not install on the server, it is a desktop application only. When reading this document, the term "SharePoint" applies generically to any of the supported Microsoft products mentioned above.



Appendix B: Pricing

KnowledgeLake Connect is priced at \$195 per user

Discounted pricing is available for quantity purchase

KnowledgeLake "Scan to Microsoft SharePoint" is free with all Fujitsu scanner products

Appendix C. Contact Information

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Find more information online at:

<http://www.knowledgelake.com>

<http://www.fujitsu.com/us/services/computing/peripherals/scanners/>

<http://www.officelive.com>

About KnowledgeLake:

KnowledgeLake, headquartered in St. Louis, Missouri, is the preferred Microsoft Gold Certified ISV Partner for Document Imaging and Workflow Solutions. KnowledgeLake Solutions enable organizations to capture, store, retrieve and share all critical paper-based documents and unstructured information. KnowledgeLake accomplishes this for you by extending the functionality of Microsoft SharePoint. The KnowledgeLake team, comprised of experienced software developers and solution architects, is 100% focused on providing flexible and cost effective document imaging and workflow solutions. KnowledgeLake can help you control your company's document content from your desktop and throughout the enterprise.



The information contained in this document represents the current view of KnowledgeLake, Inc. on the issues discussed as of the date of publication.

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