

Using SoftArtisans OfficeWriter with the SharePoint Business Data Catalog

OfficeWriter is a set of .NET libraries that can create, edit, and read Excel and Word binary file formats. This makes OfficeWriter an elegantly-simple solution for integrating Excel and Word documents with portals like Microsoft SharePoint. Using OfficeWriter, you can create solutions that convert SharePoint data into richly formatted, full-featured Excel reports and Word documents. Because OfficeWriter is a server-based solution, it is highly scalable and performs well. In fact, Microsoft has endorsed OfficeWriter as a replacement for the direct automation of Office products (<http://officewriter.softartisans.com/officewriter-86.aspx>), and documents created with OfficeWriter can be viewed in Office 97-2007 products. In this article, we'll present a sample using the OfficeWriter to create Word documents based on line-of-business (LOB) data imported into SharePoint.

One of the key technical challenges faced by every organization involves the integration of data from multiple LOB systems to form a comprehensive view. Most organizations, as we know, have several LOB systems including an ERP system, CRM system, HR system and several custom applications. Because these systems were built by different vendors, they contain repeated information and cannot share this information between systems. As a result, information workers must often log into several different systems throughout the day. Furthermore, as they create documents, they must copy and paste information from these various systems into Microsoft Office.

In response to the challenges faced by information workers, Microsoft created Windows SharePoint Services (WSS) as an "information worker platform" designed to provide all of the tools and collaborative elements that information workers need throughout the day. In response to the particular problem of integrating back-end LOB data, Microsoft created the Business Data Catalog (BDC) as part of the enterprise version of SharePoint, known as the Microsoft Office SharePoint Server (MOSS).

The BDC uses web services and ADO.NET technology to communicate with multiple back-end LOB systems. Once a connection with the BDC is made, the information from LOB systems may be used in several interesting ways. First, BDC data may be displayed in SharePoint pages using out-of-the-box web parts that ship with MOSS. Second, BDC data may be used as the data source for list columns. Third, BDC data may be used to enhance user profile information. Fourth, the BDC supports indexing LOB systems so they can be searched directly from MOSS.

While the BDC provides a strong data integration within SharePoint, it lacks the capability to integrate directly with Microsoft Office documents. Information workers spend a significant amount of their day creating and reviewing documents. Most of the time, these documents are created in Microsoft Office. Additionally, much of the data used in these documents comes from LOB systems. Consider, for example, the creation of an invoice. The invoice might be created in Microsoft Word, but it requires the customer contact information from a CRM system, and the status of the account from an ERP system. Ideally, the BDC would provide direct integration of these systems with Microsoft Office, but it does not.

The gap between the BDC and Microsoft Office is an ideal place to take advantage of OfficeWriter. By creating a custom OfficeWriter solution, we can utilize the data contained in the BDC to create Office documents. The OfficeWriter solution is possible because the BDC supports a programming interface

that exposes BDC data in code. OfficeWriter can use the BDC programming interface to retrieve data while taking advantage of its own native capability to place that data in document fields.

The demonstration code shows an example of integrating the BDC with OfficeWriter. The solution creates a SharePoint feature that appears in the Share Services Provider of MOSS and allows documents to be created from BDC data. Using this sample, you could move to more sophisticated solutions that automatically create specific documents such as invoices.