HubKey Case Study

An Altova customer OEMs MapForce and XMLSpy to use as the mapping and XML development components of their Microsoft® Sharepoint®-based EDI management application.

Overview

HubKey is a technology company offering e-commerce solutions and services to small and mid-sized organizations. Their flagship product, ILXA, is a hosted application that uses the document and workflow management capabilities of Microsoft Sharepoint, combined with the power and flexibility of Altova MapForce and XMLSpy, to deliver a scalable, end-to-end, business-to-business (B2B) solution for outsourced EDI.

ILXA builds an intuitive user interface and superior content management controls and functionality around e-commerce/EDI data sources, giving customers the freedom to quickly and accurately process electronic transactions without the need for costly software and hardware systems.

The Challenge

The HubKey team wanted to build a comprehensive EDI management and translation system that would give their clients the ability to track their EDI transactions across a customized workflow and also transform the messages into virtually any other data format.

EDI systems are required to handle a large and constant flow of transactions going back and forth between trading partners. While the actual volume of the data being transmitted is often very small, the amount of individual communications can be overwhelming. HubKey ILXA contains the chaos of EDI automation by giving organizations the ability to view

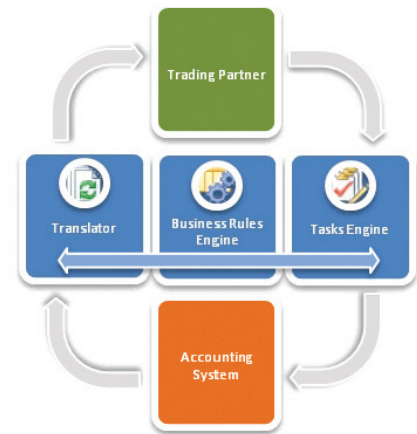and manage tasks and processes in batches or on-the-fly.

Recognizing an increasing demand for B2B integration systems that comply with both EDI and XML, HubKey decided to build a platform that had powerful support for both data formats and could generate application code to automate these translations. Complex EDI-XML and XML-EDI mappings would run behind-the-scenes, but users would be able to access these mappings, as well as the raw data, for quality assurance and error fixing.

The Solution

HubKey ILXA is a hosted e-commerce solution that gives non-technical end users the ability to seamlessly manage their EDI transactions without being exposed to complex data syntax. To easily manage the document workflow, HubKey chose to build their system on top of the Sharepoint platform, creating a customizable .NET application with advanced functionality for a collaborative workflow environment.

The ILXA system draws upon the versatility and quality control capabilities of XML, with EDI-XML conversion powered by Altova MapForce. The end result is sophisticated translation software combined with validation and workflow management capabilities, all in one easy-to-use system.

- **Translator** – eIDverifier standardizes and screens applicant-provided information to test for data inconsistencies and irregularities.
- **Tasks Engine** – gives users a Web-based interface through which to view and orchestrate document management tasks
- **Business Rules Engine** – handles data validation, alerts, substitutions, and more through generic or specific processing rules devised by the user
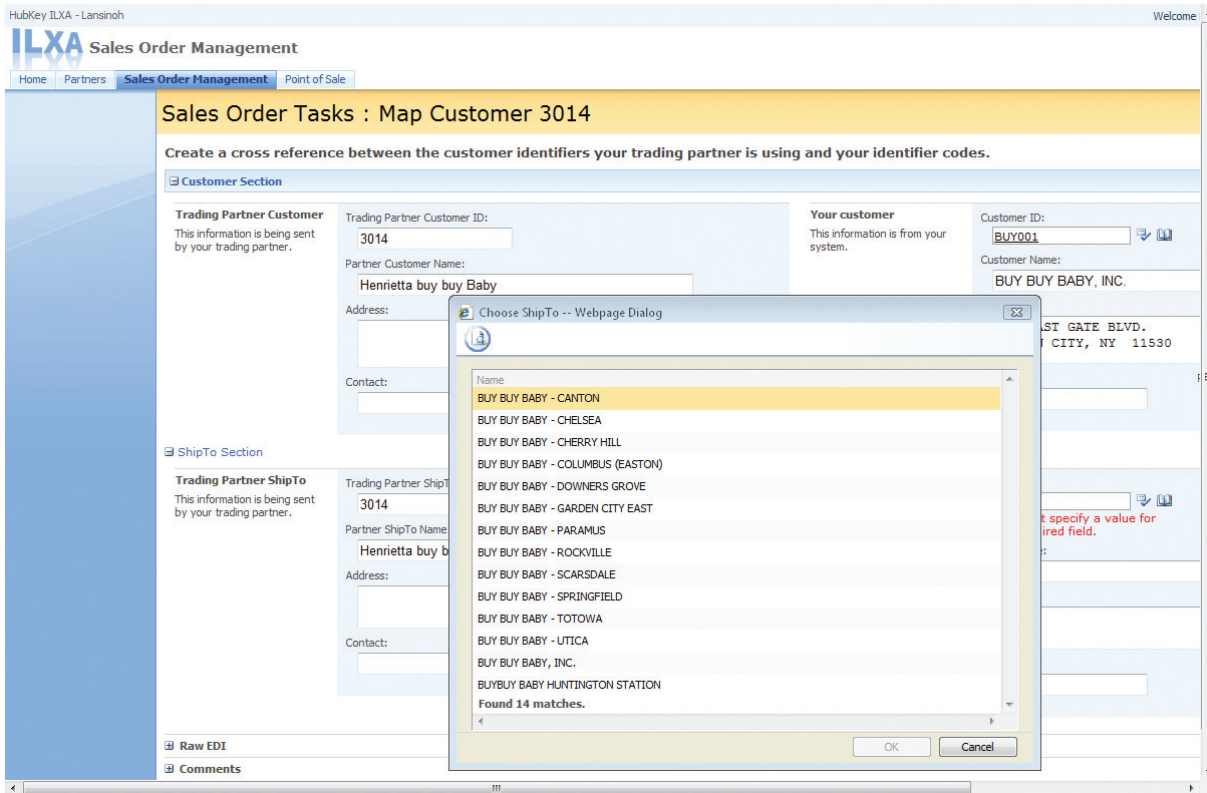

ILXA is delivered to customers in the form of a personalized, secure Web portal. Connections are easily set up between backend accounting/ ERP systems (including technologies from Microsoft, Sage Software®, Exact®, and Intuit®) and member trading partners for sending and receiving messages via virtually any connectivity option (AS2, VAN, HTTP, etc.). The modularity of the ILXA system, combined with the experienced solution providers at HubKey, work together to make setting up the system a seamless process that can be implemented and up and running within 24 hours.
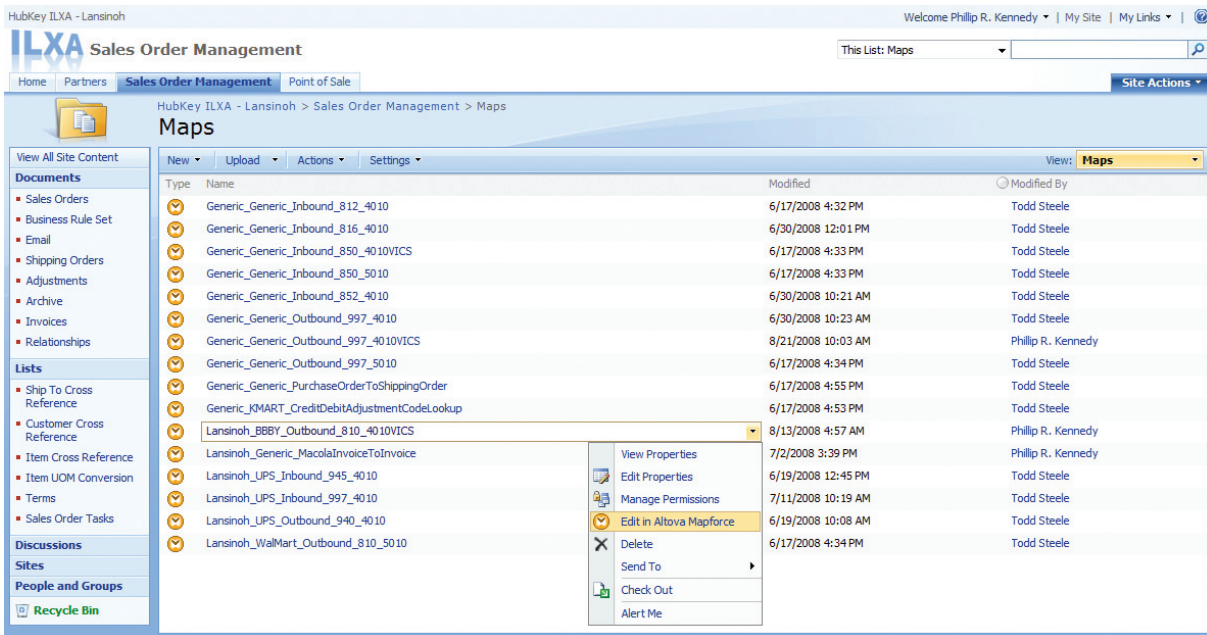
Translator

Using the data transformation and code genera-tion capabilities of MapForce, ILXA translates raw EDI data into XML based on generic XML Schemas (developed using Altova XMLSpy) stored on the system. Once in XML, the dat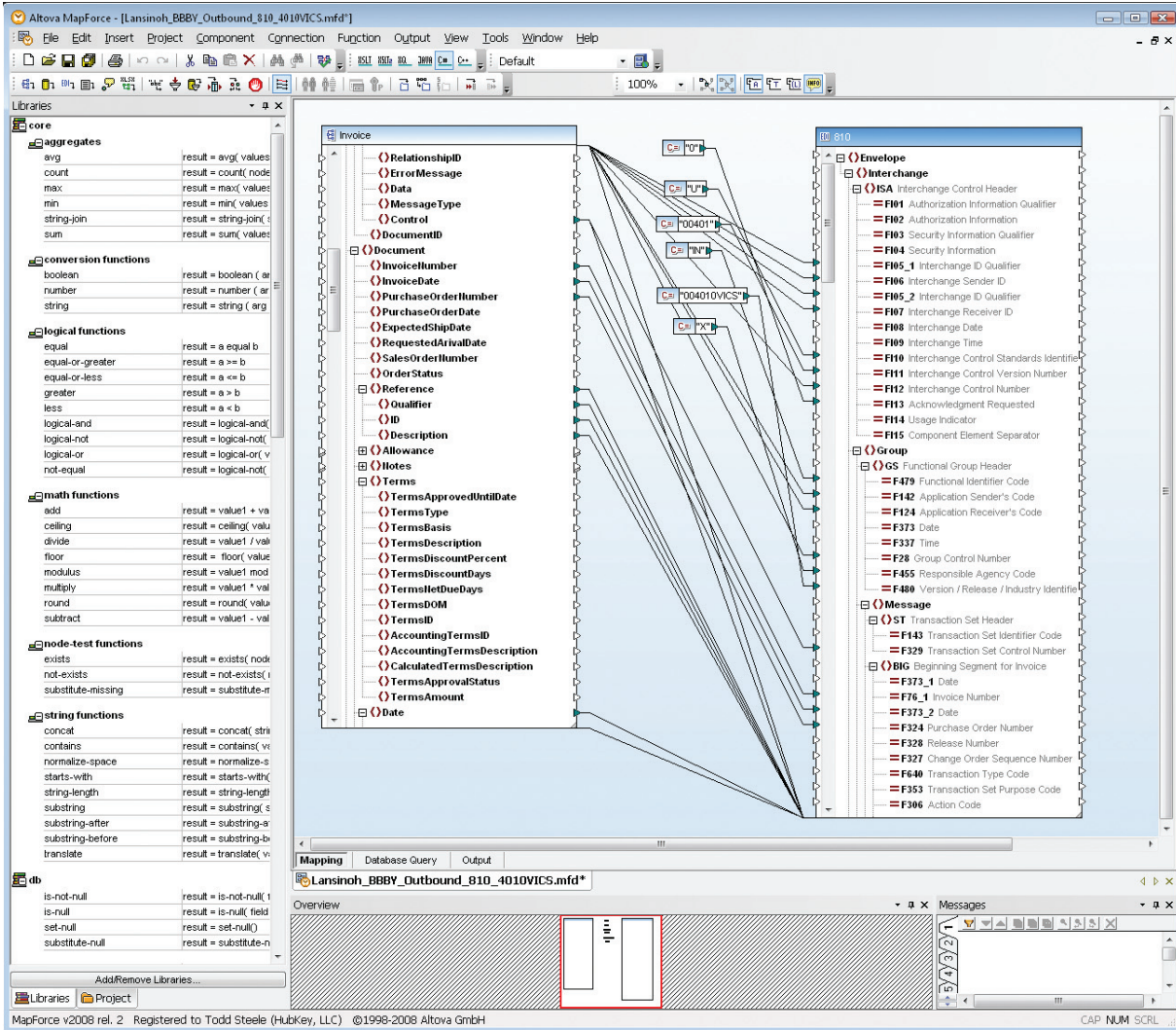a becomes much more usable within the Sharepoint environment, enabling users to work easily with messages and respond to tasks. Non-technical users can create workflows, assign tasks, and send and receive messages within the ILXA interface without even seeing a line of EDI or XML code.

However, if changes or adjustments need to be made, ILXA customers are given the freedom to apply these in-house using the data maps saved in the SharePoint document library.

MapForce's intuitive graphical interface enables users to redraw connections, add functions from the function library, and apply filters to the mappings. Any saved changes cause compiled code to be saved back to the system and will affect ensuing automated transformations.

MapForce generates program code in Java, C++, and C#. HubKey opted to have code generated in C# to make it easily consumable by the Sharepoint platform.

Once the data has been translated, users can even launch XMLSpy to view and make changes directly in the XML. The generated XML displays the original EDI format in the file for an easy comparison.
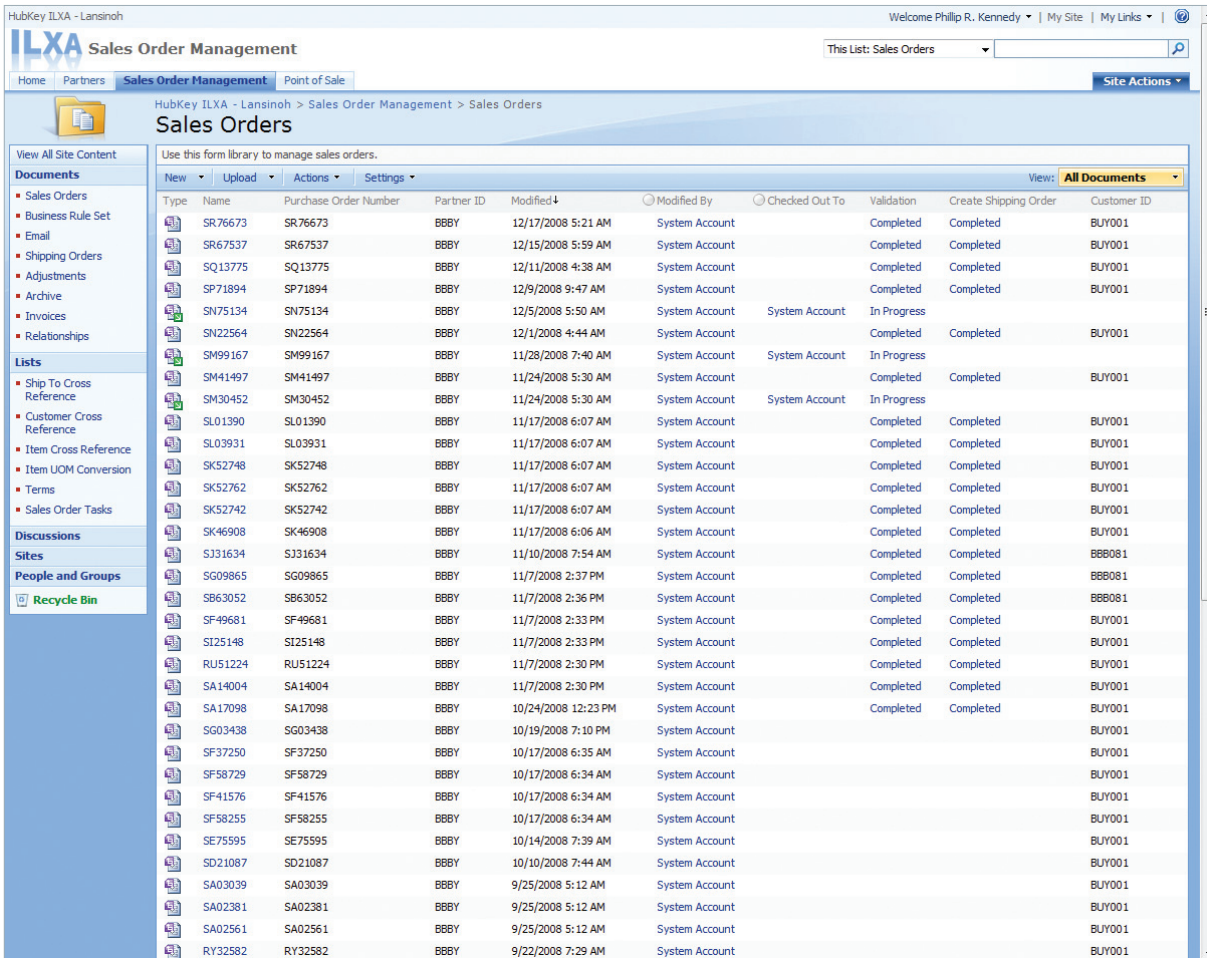

Using MapForce, ILXA can also be easily configured to convert data into other EDI specifications, databases, flat files, Microsoft Excel 2007, and Web services.

Tasks Engine

The ILXA Tasks Engine enables users to manage advanced workflows, as well as track and resolve processing and validation errors that occur during the translation process. Users can view all of the documents in their workflow and take actions based on their status. Once an issue has been resolved, the document translation automatically resumes.
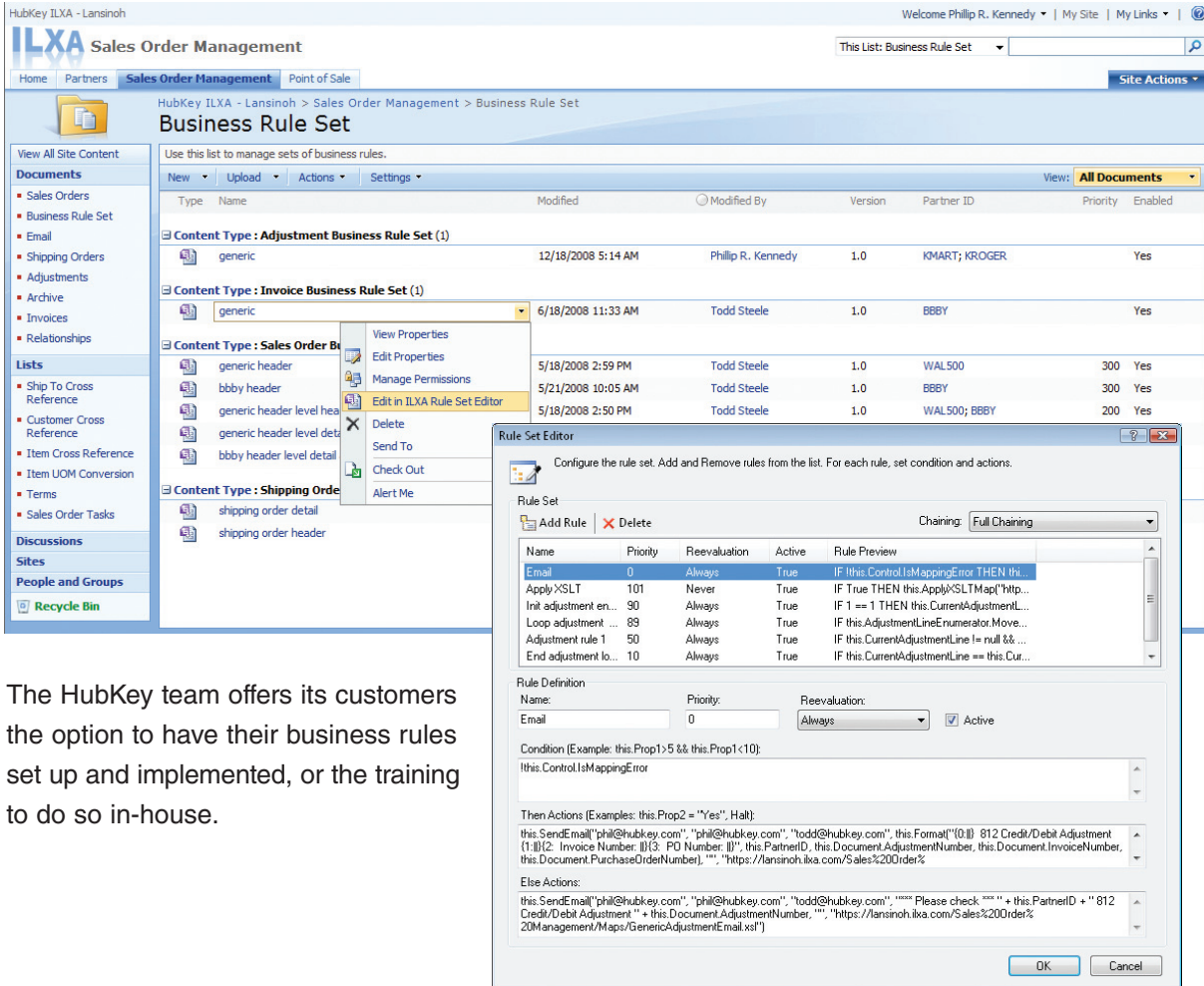

The ILXA Tasks Engine builds upon the advanced capabilities of Sharepoint to make a document management and publishing system that is ideal as an EDI/e-commerce solution. Users can easily assign, resolve, and review tasks in a secure setting based on assigned permissions and defined roles. The ability to streamline these vital business processes in one central application helps increase the quality and consistency of error-prone large-scale message translation and transmission.

Business Rules Engine

HubKey's patent-pending Business Rules Engine provides customers with a powerful tool for implementing specific rules based on documents, trading partners, and/or date/time parameters. This gives organizations the ability to apply filters to transactions based on customized definitions and constraints that apply to a particular situation.

The HubKey team offers its customers the option to have their business rules set up and implemented, or the training to do so in-house.

The Results

ILXA breaks down the barriers to costly EDI implementation, giving organizations an affordable, flexible, and reliable alternative to fully outsourced solutions through a modern, Web-enabled, component-based application. By combining content management functionality with age-old e-commerce business process requirements, HubKey is able to offer its customers a centralized EDI management application with resources and personalized services customized to meet any level of e-commerce data expertise.

Altova MapForce and XMLSpy provide the translation and XML structure behind-the-scenes, but are also available to more technical users to make adjustments and confirmations at the source. This gives HubKey the ability to offer a flexible and changeable solution to their end users, giving them the power to decide upon hands-on EDI management, or an assisted solution that still falls within their budget.