mindfire

List Migration Tool
A SharePoint-Healthcare Case Study
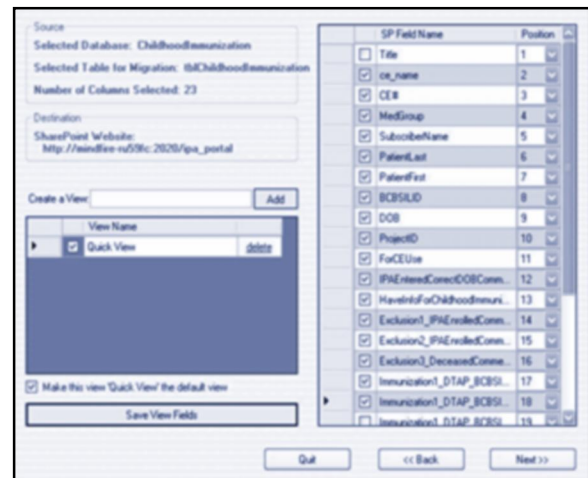
Executive summary

This project involved creation of a tool capable enough for performing migration of data present within SQL external database onto SharePoint lists.

About our client

Client : Software Services and Solutions
Location : Chicago, IL, USA
Industry : Health Care

Business situation

The customer used to have different healthcare surveys created through Visual Web GUI forms for which the data was stored within an external SQL database. They had a need to import these patient specific data from SQL tables on to SharePoint lists based on a group name and also at a later stage merge any changes happening within the SQL tables on to the survey specific SharePoint list.

Solution details

What was proposed?

After evaluating various possible options, the development team at Mindfire thought of creating a windows application which will help facilitate the migration process. The idea was to connect to any external database and choose the table which needs to be migrated. Once the table is selected, an interface had to be provided to select the columns, define permissions based on the group name, and another interface to create different views. The process would result in creating a list template based on the columns selected and use that template to replicate the lists based on the group name and then perform the data migration on each of the group-specific lists.

The next job was to find out a way synchronize the data whenever any change happened within the SQL table. For this an SQL CLR Trigger was to be created and attached to the database to look for any

possible changes and then merge the same in the corresponding SharePoint list through SharePoint service calls.

Final Results

Software system

As planned, a windows application with its corresponding installer was created and handed over to the customer. It helped in the easy installation of the solution within a SharePoint server. The solution comprised of different forms for carrying out data migration operations for which the details are provided below.

Database Connection Form
This form is used to connect to a specific external SQL database and then select the table whose data needs to be migrated.

Map Column Form
This form takes the URL of the SharePoint site to which the data needs to be migrated and then populates the columns of the selected table from the database. One can then choose the columns which need to be migrated and the form has the intelligence to select the corresponding SharePoint data-type for the selected columns. Additionally, it provides options for modifying the default data-type of the columns in SharePoint list along with renaming the column from what is otherwise there in the database.

Create View Form
This form allows creation of custom views by selecting the fields which need to appear within each. While creating the view, it also provides an option to order the fields and set one of the views as default.

Settings Form
This form allows providing the template name which drives creation of lists based on the group field. Also, one can define the list level and group level permissions here.

Summary Form
Here the complete overview of all the selections and settings is presented to the users. They can verify everything within this form and accordingly decide to proceed with migration or step back to define any other changes.

Migration Form
This is the final form which runs the migration process and helps visualize the progress & status of each step associated with the migration.

Screenshots

Database Connection Form

Map Column Form

Create View Form

Settings Form

Summary Form

Migration Form

Technologies

WSS 3.0, MOSS 2007, SharePoint 2010, C#.Net 3.5

Customer benefits

The level of automation achieved through this tool helped the customer in streamlining the migration process and migrate huge amount of data on to SharePoint with ease.

Future relationship

Since this tool was a huge success, the client decided to create a few more, related to automating their internal processes, with us.