## Integrating SQL Server Spatial Data with Virtual Earth

This is a demo of using SQL Server Spatial Data with the Virtual Earth Web Control. The API for the Web Control uses AJAX calls to get data to populate the control. Basically the code works like this.

* The web page default.aspx contains a reference to the Virtual Earth 6.1 Web Control.
* When the page is invoked the code in the page runs functions in the Jscript code (zipcode.js) to initialize the map.
* When either a button is pressed or the map is clicked-on, the zipcode.js code calls a Web Service and waits for the results. The results are used to draw polygons on the map.
* The Web Service (code is in App\_Code\ SpatialMethods.asmx.cs) calls SQL Server to obtain the data and formats the data into an XML format to represent polygons. Spatial methods are used to obtain additional data if “show neighboring regions” is selected. A sptial index is used if “Use Index” is selected.

To set up the demo, you must have the census database installed. You can install it by attaching the database to your instance of SQL Server.

Make sure SQL Server instance SQLDEV01 is using mixed security before defining the spatial\_user login and user account. You can accomplish this by using SQL Server Management Studio.

* Open Object Explorer and Connect to SQLDEV01 instance
* Right-click on the SQLDEV01 instance in Object Explorer. Choose Properties from the context menu.
* Choose the security page on the Server Properties Dialog.
* Change Server Authentication to SQL Server and Windows Authentication mode
* Click OK to dismiss the dialog.
* Restart the server for the change to take effect.

The spatial database should contain a specific login and user account for the connection in the client. Run the script **set\_spatial\_user.sql** to set this up.

To set up the IIS Web Site for the demo.

* Make sure IIS is installed
* Create a new WebSite Project for SpatialDemo6 website. Bring up Visual Studio
  + choose New / WebSite
  + make sure ASP.NET Website
  + Location: HTTP Language: Visual C#
  + http://localhost/SpatialDemo6
  + Close the project
* Replace the directory c:\inetpub\wwwroot\SpatialDemo6 with the directory provided
* To enable debugging in the project, run IIS Manager
  + Go to Web Sites / Default Web Site
  + Right-click on SpatialDemo6 choose Properties
  + Directory Security tab, Authentication button "Edit"
  + Click "Integrated Windows Authentication"
* To enable script debugging in IIS, follows the instructions given at the prompt that appears when you run the project.

Open the project **SpatialDemo6.sln**.

Press “Start Without Debugging” (Ctrl-F5) to run the demo.

Choose a zipcode to start with and click “Draw Region” button to get started.