HOPEWISER

Hopewiser Web Services

.NET Postcode Sample

Contents

1 Introduction

Hopewiser provides a set of SOAP web services that can be used to perform address lookup and verification operations over the internet.

1.1 Intended Audience

This document is aimed at developers who wish to utilise the Hopewiser SOAP web service with the Microsoft .NET Framework.

These source code examples are written in Visual Basic.NET. The examples should be treated as a guide only; the intention is merely to show how to connect to the service, submit queries and manage responses.

The general approach illustrated applies in principle to other languages.

2 Installation

This example implements a Windows Forms application which provides a form that can be populated with address information and submitted to the Hopewiser web service for matching.

2.1 System Requirements

We recommend the following set up:

- Windows XP or later, Professional edition or higher, with latest available Service Pack
OR
- Windows Server 2003 or later, with latest available Service Pack

- .NET Framework Version 2 or later
- Visual Studio 2005 or later

Other variations may work but have not been tested by Hopewiser.

2.2 Visual Studio Setup

Extract the contents of **postcode-sample.zip** to a suitable location on your computer.

Create a new Visual Studio project.
- Start Visual Studio.
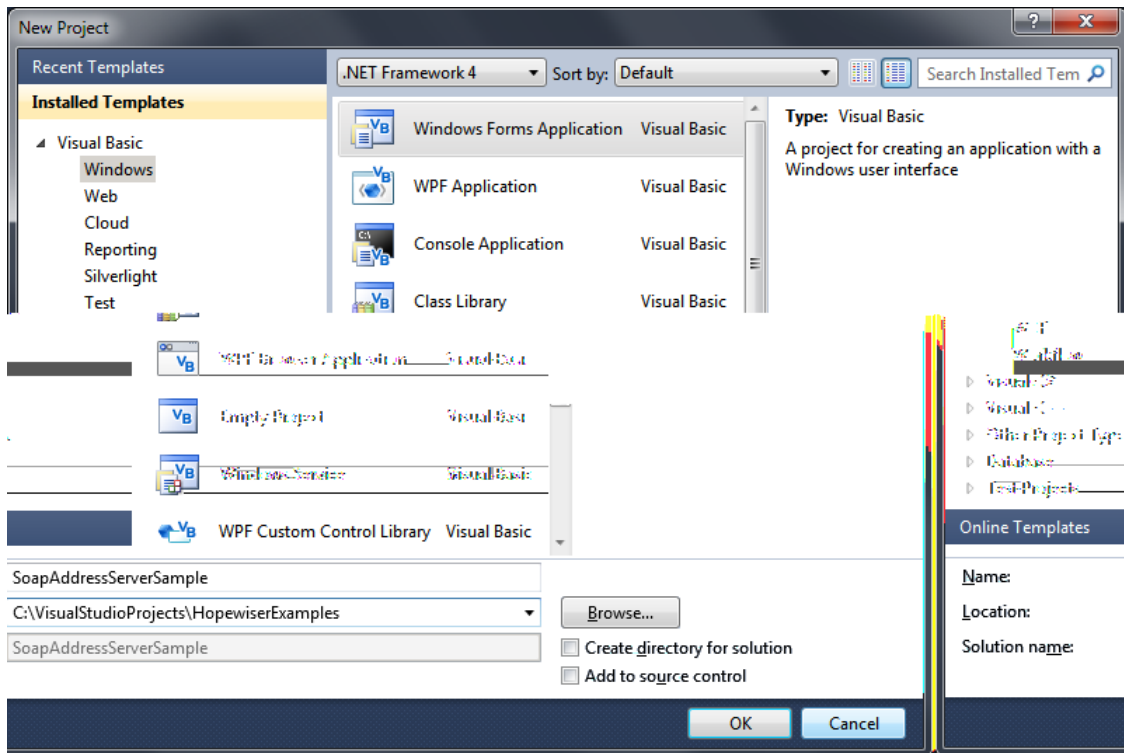- Click the **File** menu, point to **New** then click **Project**.

Fig 1 – New Visual Studio Project

Configure the project:
- Expand **Visual Basic**, click **Windows** then select **Windows Forms Application**.
- In **Name**, type "SoapAddressServerSample".
- In **Location**, type a suitable location of your choice, e.g. "C:\VisualStudioProjects\HopewiserExamples". The location should be within the local file system rather than a mapped network folder.
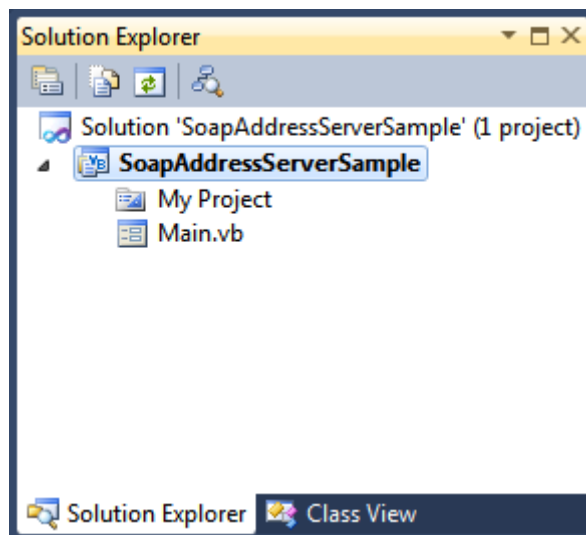
Click **OK** to continue.

Delete the file **Form1.vb** which is created by Visual Studio.
- In the Solution Explorer, right-click **Form1.vb** then click **Delete**.

Add the files extracted from **postcode-sample.zip** into the project:
- Right-click the project name, point to **Add** then click **Existing Item**.
- In the dialog window, ensure **All Files (*.*)** is selected, navigate to the folder where you extracted the sample files, select them all then click **Add**.
- If you are asked if you want to overwrite any existing files, click **Yes**.

Your solution should now look similar to the following figure:

Fig 2 – SoapAddressServerSample Project

Add a reference to the Hopewiser web service:
- Right-click the project name then click **Add Web Reference**.
  - o Depending on your version of Visual Studio and .Net Framework targetted, the **Add Web Reference** command might not be available in the context menu. In that case, click **Add Service Reference**, click **Advanced**, then click **Add Web Reference**.
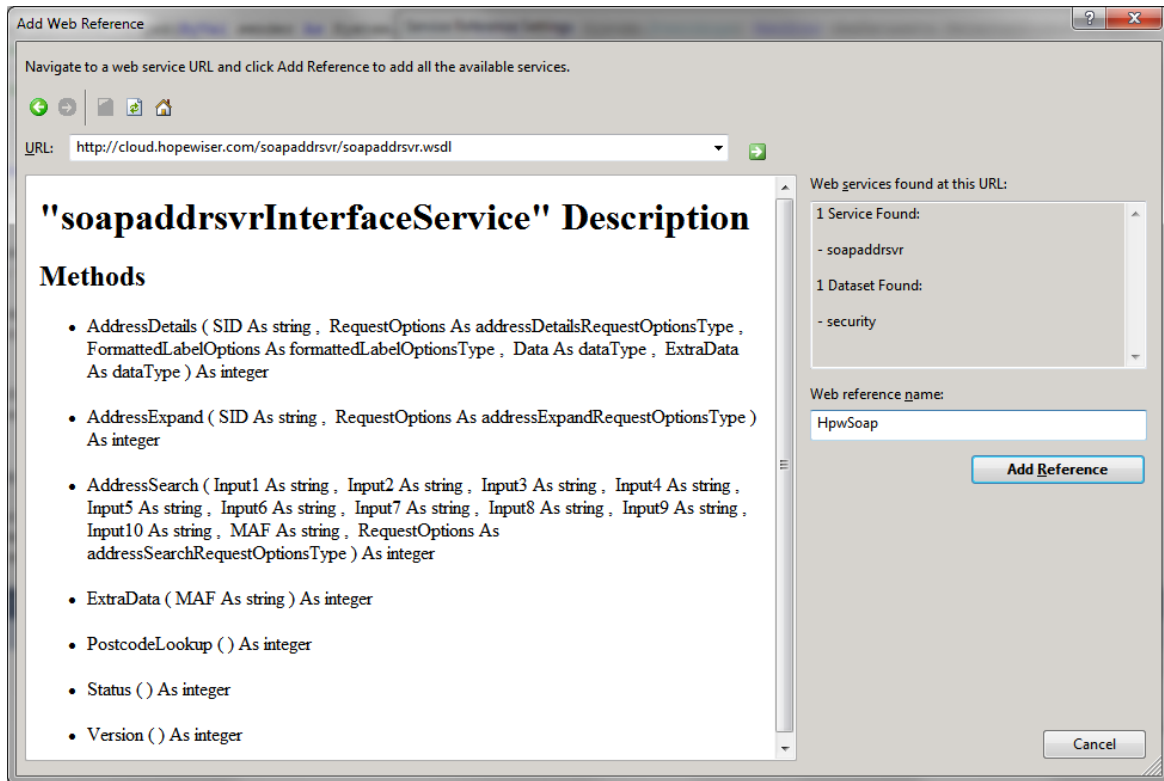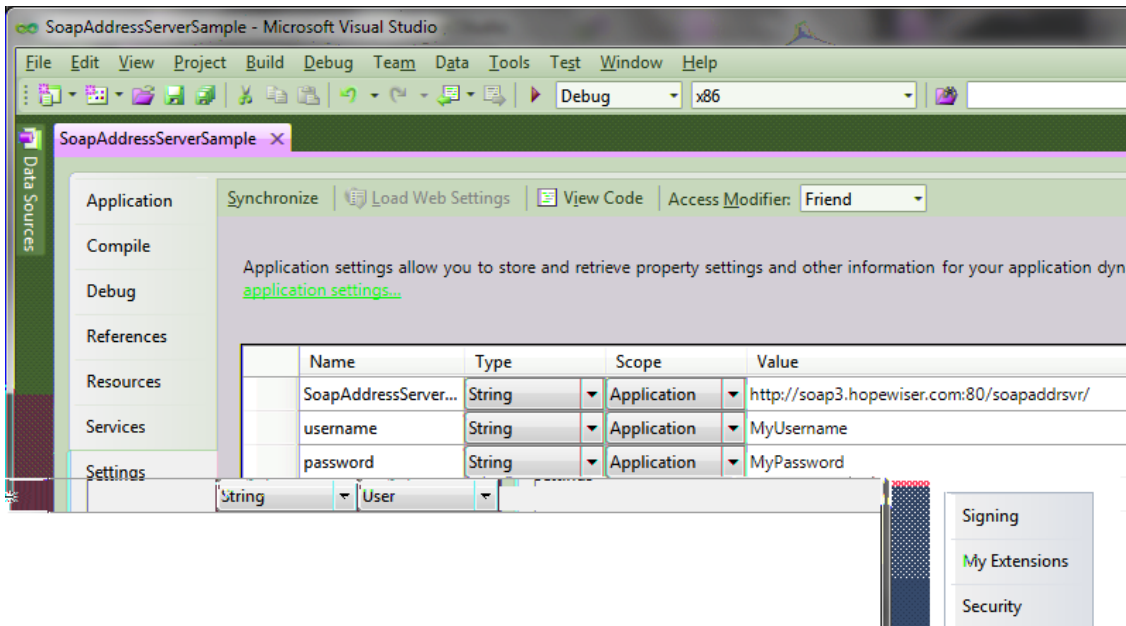

Fig 3 – Web Reference

- In **URL**, type:
    http://cloud.hopewiser.com/soapaddrsvr/soapaddrsvr.wsdl

  then click the Go arrow.

- When the web service is found and the description has loaded, in **Web reference name**, type:
    HpwSoap

Click **Add Reference** to continue.

You must set your service username and password in the project configuration:
- Click the **Project** menu then click **SoapAddressServerSample Properties**.
- Click the **Settings** option.
- Add a **username** setting and a **password** setting.

Fig 4 – Username and Password

If you signed up online, you can use the username and password you chose at that time.

If you did not sign up online, your username and password will be provided to you by Hopewiser customer services or your sales agent.
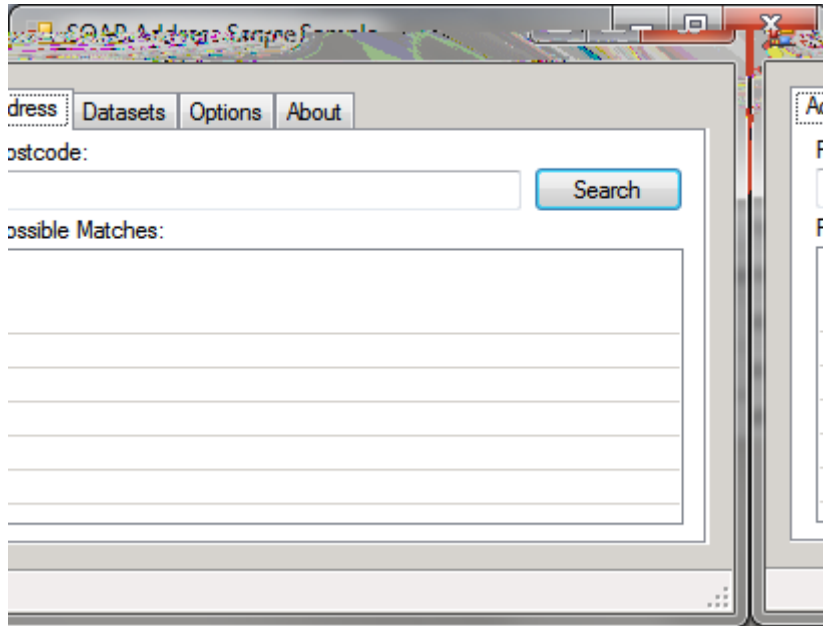
Finally in the project properties, we need to set the main form:
- Click the **Application** option.
- In **Startup form**, select **frmMain**.

Your project is now ready to run. Press **F5** to continue.

3 Usage

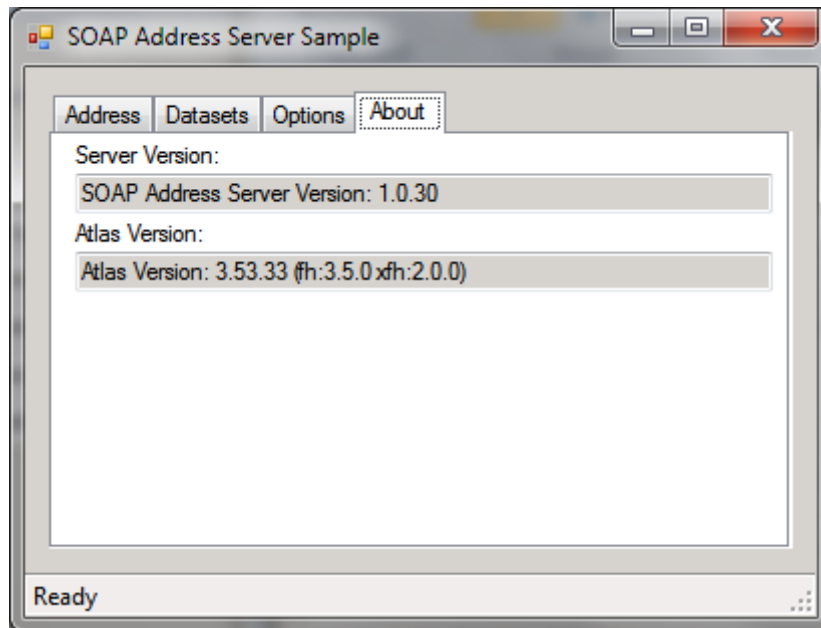When run, your project starts the application and displays the following form:

Fig 5 – Start Screen

The window is resizable so you can change it as required.

3.1 Service Information

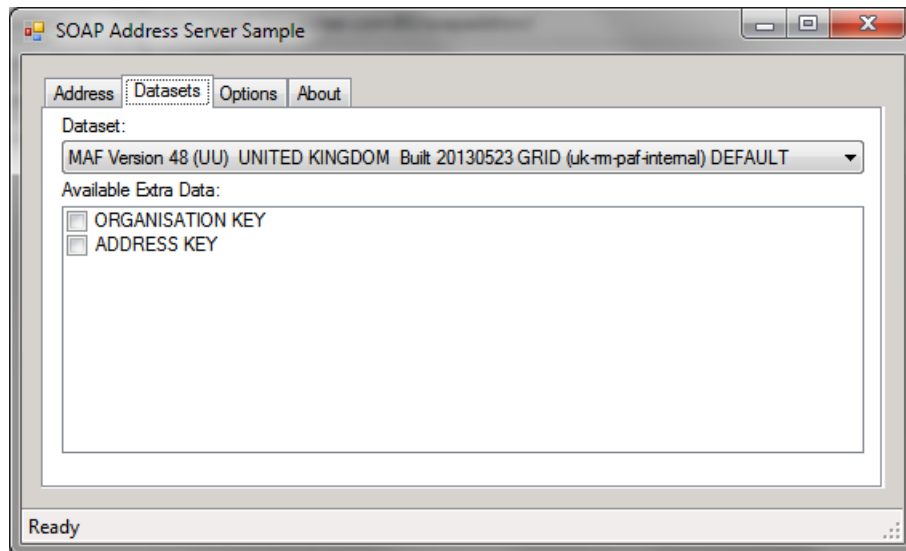The **About** tab displays information about the web service.

Fig 6 – Service Information

If you see information similar to that shown above, you have successfully connected to Hopewiser's web service. If there is a problem connecting to the service, error information will be shown in a message box and also in the status bar.

3.2 Datasets

The **Datasets** tab displays information about the datasets available to your account.
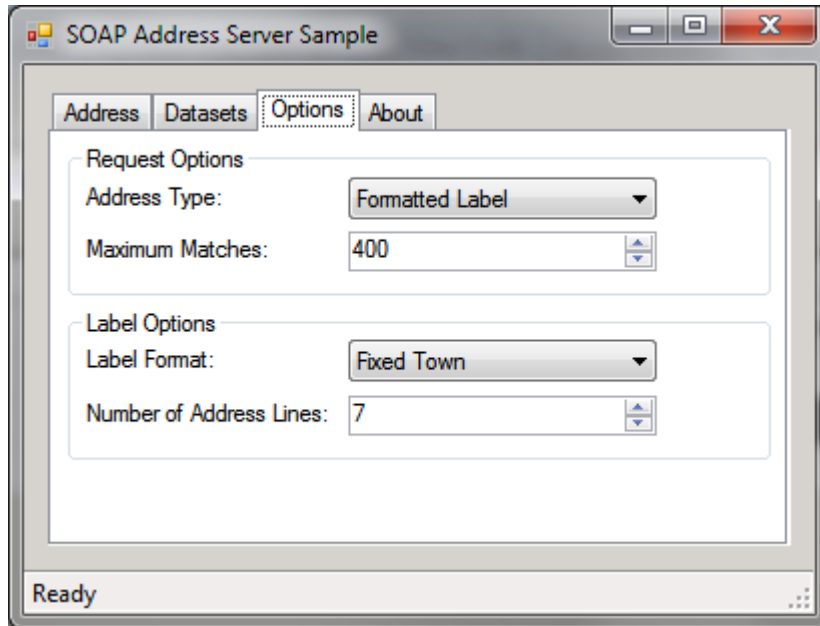

Fig 7 – Datasets Information

If more than one dataset is available to your account, you can select the one you want to use. If the selected dataset contains Extra Data, you can select which Extra Data fields you want to be returned.

3.3 Options

The **Options** tab lets you choose a selection of settings that affect the results of address lookups and their presentation.

Fig 8 – Options

Other options are available. A selection has been implemented to illustrate the general principles. Please see service documentation for full details.

3.2 Rapid Address

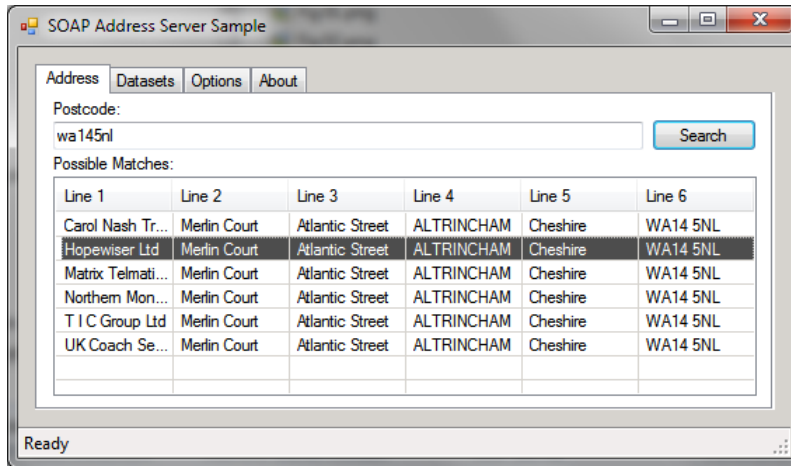The **Address** tab allows you to look up an address from a postcode or partial postcode.

Fig 9 – Rapid Address

Partial postcodes may include the 'wildcard' characters '?' (question mark) which matches any single character or '*' (asterisk) which matches any string of characters, but not as the first character of the postcode.
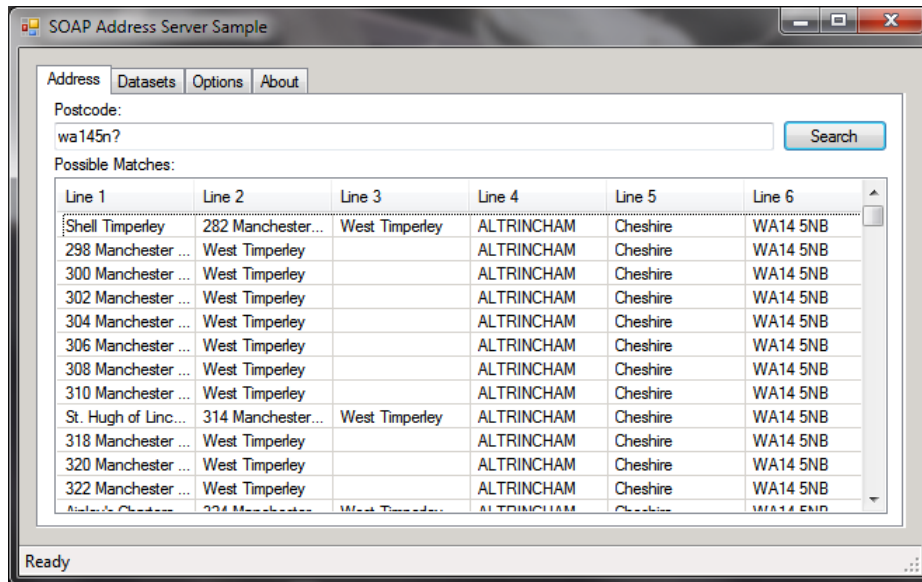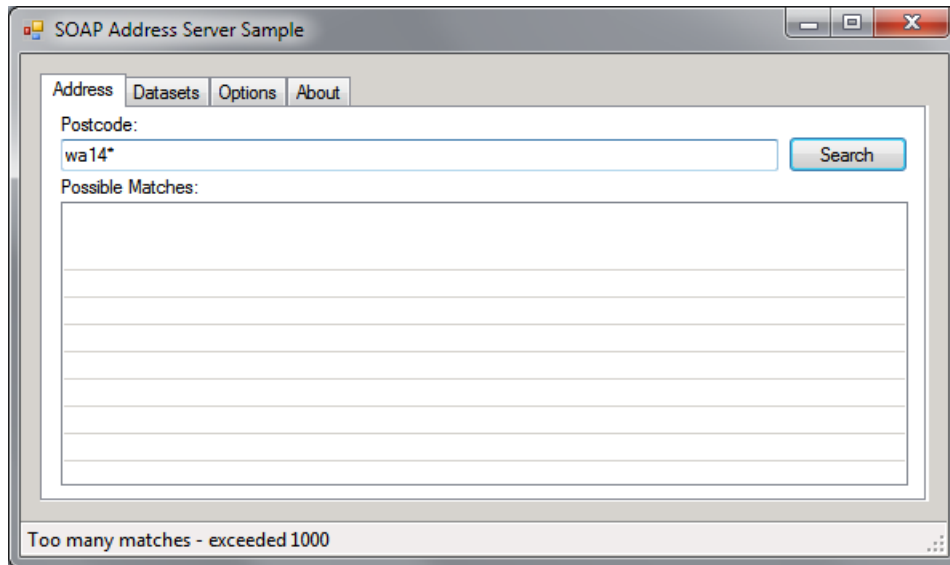

Fig 10 – Rapid Address with single character wildcard

The maximum number of matches is restricted by the service as well as by the Maximum Matches option to prevent searches that are too wide.

Fig 11 – Rapid Address with too many matches

The status bar displays any error information.