

Web Services with VS.Net

K.L. Lin

Demo – Hello Web Services

■ Development environment

- Server : To develop a ASP.NET Web Services project

 - Win 2K Server

 - IIS (Internet Information Services)

 - Web Server

 - VS.Net (Visual Studio .Net)

- Client : To develop a Windows Application

 - VS.Net

- Microsoft Outlook
- 我的文件
- 我的電腦
- 我的最近使用的檔案
- 回收筒
- Internet Explorer
- Windows Update
- WinZip
- 開啟 Office 文件
- 新增 Office 文件
- 程式集(P)**
- 文件(D)
- 設定(S)
- 搜尋(C)
- 說明(H)
- 執行(R)...
- 關機(U)...

- 附屬應用程式
- 啟動
- Internet Explorer
- Outlook Express
- Microsoft .NET Framework SDK
- Microsoft Visual Studio .NET**
- Dr.eye 2002 譯典通
- Norton Internet Security
- EmEditor v3
- Microsoft Office 工具
- VNC
- WinZip
- Microsoft Access
- Microsoft Excel
- Microsoft FrontPage
- Microsoft Outlook
- Microsoft PowerPoint
- Microsoft Word

- Visual Studio .NET Tools
- Microsoft Visual Studio .NET Documentation
- Microsoft Visual Studio .NET**



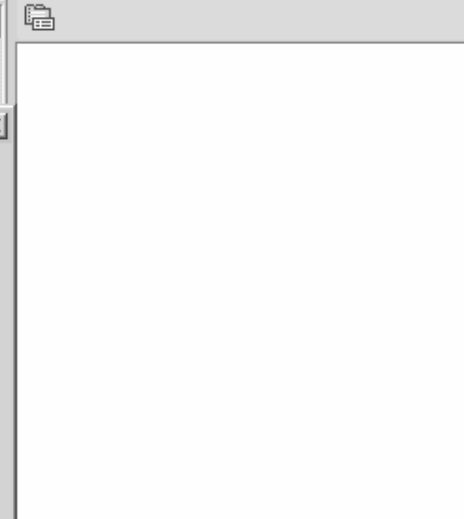
Start Page

Start

Get Started

- What's New
- Online Community
- Headlines
- Search Online
- Downloads
- XML Web Services
- Web Hosting
- My Profile

Solution Explorer



New Project

Project Types:

- Visual Basic Projects
- Visual C# Projects
- Visual C++ Projects
- Setup and Deployment Projects
- Other Projects
- Visual Studio Solutions

Templates:

- Windows Application
- Class Library
- Windows Control...
- ASP.NET Web Application
- ASP.NET Web Service
- Web Control Library

A project for creating XML Web services to use from other applications

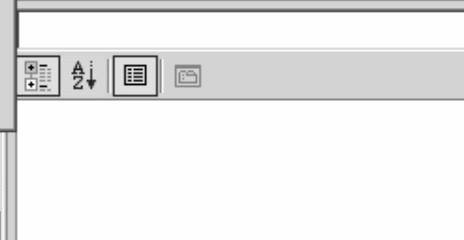
Name:

Location:

Project will be created at http://localhost/hello.

Solution Explorer | Class View

Properties



Output



```
Imports System.Web.Services

<WebService(Namespace:="http://tempuri.org/")> _
Public Class Hello
    Inherits System.Web.Services.WebService

    Web Services Designer Generated Code

    <WebMethod()> Public Function Hello(ByVal strName As String) As String
        Hello = "Hello" & strName
    End Function
End Class
```

Solution Explorer - hello

- Solution 'hello' (1 project)
 - hello
 - References
 - AssemblyInfo.vb
 - Global.asax
 - hello.aspx
 - hello.vsdico
 - Web.config

Build Action	Content
Custom Tool	
Custom Tool Namespace	

File Name	hello.aspx
Full Path	D:\htdocs\hello\hello.aspx

址(D) | 📁 hello

料夾

- 桌面
- 我的文件
 - My Pictures
 - Visual Studio Projects
 - hello
 - SayHello
 - VSMacros
- 我的電腦
 - 3.5 軟碟機 (A:)
 - 本機磁碟 (C:)
 - 本機磁碟 (D:)
 - 光碟機 (E:)
 - MOBILEDISK (F:)
 - 控制台
- 網路上的芳鄰
- 資源回收筒
- Internet Explorer

名稱 ▲	大小	類型	修改日期
📄 hello.sln	1 KB	Visual Studio Solution	2003/3/27 下午 09:35

hello

hello.sln

Visual Studio Solution

修改日期: 2003/3/27 下午
09:35

大小: 929 個位元組

屬性: (一般)

系統管理工具

Internet 服務管理員

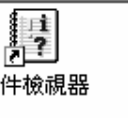
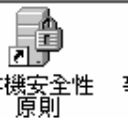
捷徑

管理 IIS，Internet 及 intranet 網站的 Web 伺服器。

修改日期: 2003/3/28 上午 12:06

大小: 2.24 KB

屬性: (一般)





- Internet 服務管理員
- Microsoft .NET Framework 管理
- Microsoft .NET Framework 管理
- Server Extensions 管理
- Telnet 伺服器管理
- 元件服務
- 分散式檔案系統
- 本機安全性原則
- 事件檢視器
- 服務

Internet 服務管理員

管理 IIS，Internet 及 intranet 網站的 Web 伺服器。

修改日期: 2003/3/28 上午 12:06

大小: 2.24 KB

屬性: (一般)



Internet Information Services

執行(A) 檢視(V)

樹狀目錄	名稱	路徑
Internet Information Services	Scripts	c:\inetpub\scripts
*dolphin	IISHelp	c:\winnt\help\iishelp
預設的 Web 站台	IISAdmin	C:\WINNT\System32\inetrv\iisadmin
Scripts	IISSamples	c:\inetpub\iissamples
IISHelp	MSADC	c:\program files\common files\system\msadc
IISAdmin	_vti_bin	C:\Program Files\Common Files\Microsoft Shared\Web Ser...
IISSamples	Printers	C:\WINNT\web\printers
MSADC	C	c:\
_vti_bin	D	d:\
Printers	CrystalReportWeb...	C:\Program Files\Microsoft Visual Studio .NET\Crystal Rep...
C	hello	
D	_vti_pvt	
CrystalReportWebFormV	index.asp	
hello		
_vti_pvt		
系統管理 Web 站台 (已停)		
預設 SMTP 虛擬伺服器		

- 料夾
- 桌面
- 我的文件
 - My Pictures
 - Visual Studio Projects
 - hello
 - SayHello
 - VSMacros
- 我的電腦
 - 3.5 軟碟機 (A:)
 - 本機磁碟 (C:)
 - 本機磁碟 (D:)
 - htdocs
 - _vti_pvt
 - hello
 - bin
 - software
 - user
 - 光碟機 (E:)
 - MOBILEDISK (F:)
 - 控制台
 - 網路上的芳鄰
 - 資源回收筒
 - Internet Explorer

hello

hello.asmx
Web Service

修改日期: 2003/3/27 下午 09:57

大小: 80 個位元組

屬性: (一般)

名稱	大小	類型	修改日期
bin		檔案資料夾	2003/3/27 下午 09:35
AssemblyInfo.vb	2 KB	Visual Basic Source	2003/3/27 下午 09:35
Global.asax	1 KB	Active Server Applic...	2003/3/27 下午 09:35
Global.asax.resx	2 KB	.NET XML Resource...	2001/9/20 上午 06:24
Global.asax.vb	2 KB	Visual Basic Source	2003/3/27 下午 09:35
hello.asmx	1 KB	Web Service	2003/3/27 下午 09:57
hello.asmx.resx	2 KB	.NET XML Resource...	2001/9/20 上午 06:24
hello.asmx.vb	2 KB	Visual Basic Source	2003/3/27 下午 09:57
hello.vbproj	5 KB	Visual Basic .NET Pr...	2003/3/27 下午 09:57
hello.vbproj.webinfo	1 KB	WEBINFO 檔案	2003/3/28 上午 12:01
hello.vsdisco	1 KB	VS.NET Web Servic...	2003/3/27 下午 09:35
Web.config	4 KB	Web Configuration f...	2003/3/27 下午 09:35

Demo

■ Development environment

- Server : To develop a ASP.NET Web project
 - Win 2K Server
 - IIS (Internet Information Services)
 - Web Server
 - VS.Net (Visual Studio .Net)
- Client : To develop a Windows Application project
 - VS.Net



vs:/default.htm

Start Page

Start

Get Started

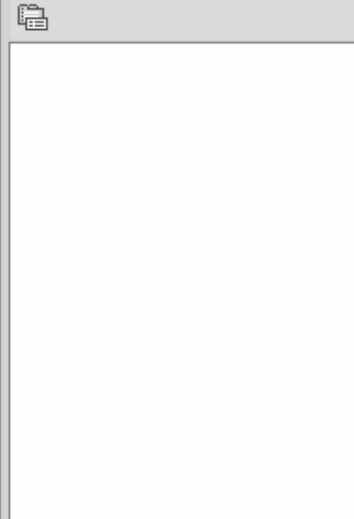
- What's New
- Online Community
- Headlines
- Search Online
- Downloads
- XML Web Services
- Web Hosting
- My Profile

Projects Find Samples

Name	Modified
hello	Today

Open Project New Project

Solution Explorer



Solution Explorer Class View

Dynamic Help



Help

- [Solution Explorer](#)
- [Managing Solutions, Projects, and Files](#)

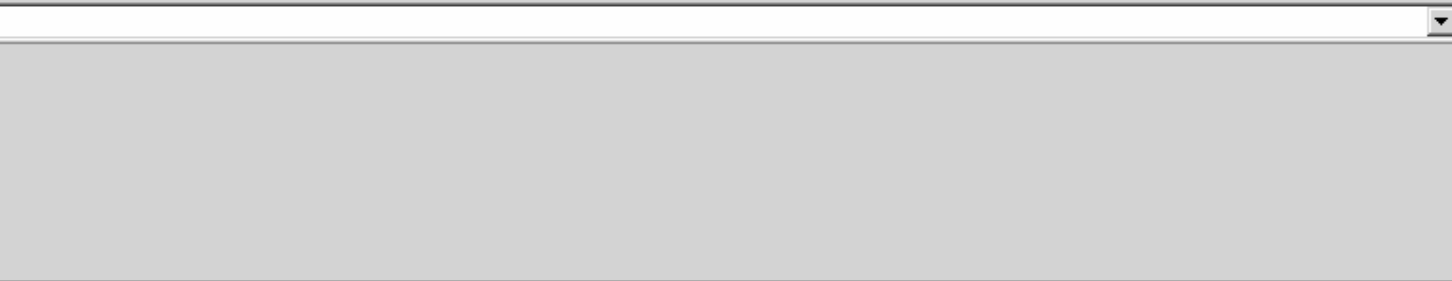
Samples

- [Visual Studio Samples](#)

Getting Started

- [Creating New Solutions and Projects](#)
- [Upgrading Existing Code](#)
- [Adding New Project Items](#)
- [Programming Languages](#)
- [Customizing Dynamic Help](#)
- [Visual Studio .NET](#)
- [Introducing Visual Studio .NET](#)
- [Customizing the Development Environment](#)

Output



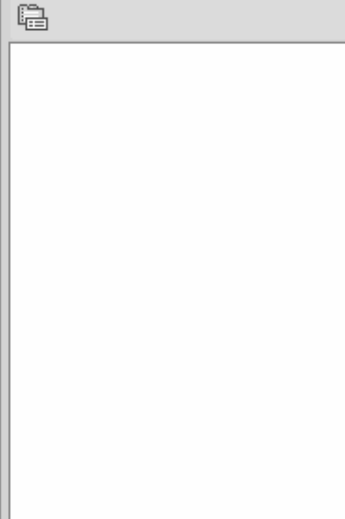


Start Page



- Get Started**
- What's New
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Solution Explorer



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- Class Library
- Windows Control...
- ASP.NET Web Application
- ASP.NET Web Service
- Web Control Library

A project for creating an application with a Windows user interface

Name:

Location:

Project will be created at C:\Documents and Settings\vision\My Documents\Visual Studio Projects\SayHello.

Solution Explorer Class View

Dynamic Help

Help

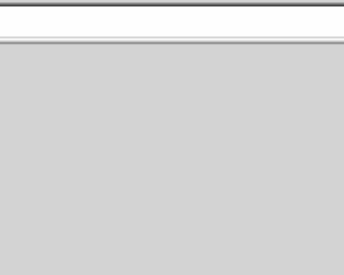
[Solution Explorer](#)
[Managing Solutions, Projects, and Files](#)

Samples
[Visual Studio Samples](#)

Getting Started

- [Creating New Solutions and Projects](#)
- [Upgrading Existing Code](#)
- [Adding New Project Items](#)
- [Programming Languages](#)
- [Customizing Dynamic Help](#)
- [Visual Studio .NET](#)
- [Introducing Visual Studio .NET](#)
- [Customizing the Development Environment](#)

Output





Start Page **Form1.vb [Design]***

Form1

TextBox1

Button

Label1

Solution Explorer - SayHello

- Solution SayHello' (1 project)
 - SayHello
 - References
 - AssemblyInfo.vb
 - Form1.vb

Solution Explorer Class View

Properties

Form1 System.Windows.Forms.Form

AccessibleName	
AccessibleRole	Default
Appearance	
BackColor	Control
BackgroundImage	(none)
Cursor	Default
Font	PMingLiU, 9pt
ForeColor	ControlText
FormBorderStyle	Sizable

BackColor
The background color used to display and graphics in the control.

Output

Properties Dynamic Help



Start Page Form1.vb [Design]* Form1.vb*

Form1

TextBox1

Button

Label1

Solution Explorer - SayHello

Solution 'SayHello' (1 project)

- SayHello
 - References
 - Add Reference...
 - Add Web Reference...
 - System.Windows.Forms
 - System.XML
 - AssemblyInfo.vb
 - Form1.vb

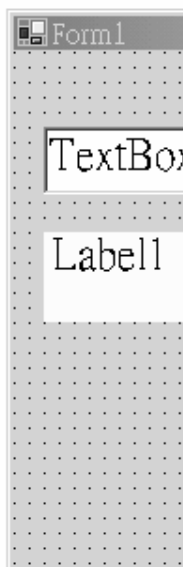
Solution Explorer Class View

Properties

Properties

Grid icon, Arrow icon, List icon, Folder icon

Output




Add Web Reference


← → [Close] [Refresh] Address:

The Add Web Reference browser helps you to locate online Web Services and use them in your applications. The Web Services available from the current Web page are listed in the Available References pane. To find Web Services, you can browse to a Web Service description page (.asmx or .wsdl), a discovery page (.disco or .vsdisco), or to the service directory sites listed below.

Web Service Directories:

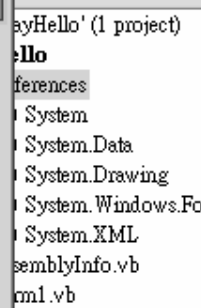
 **UDDI** Universal Description Discovery Integration
[UDDI Directory](#)

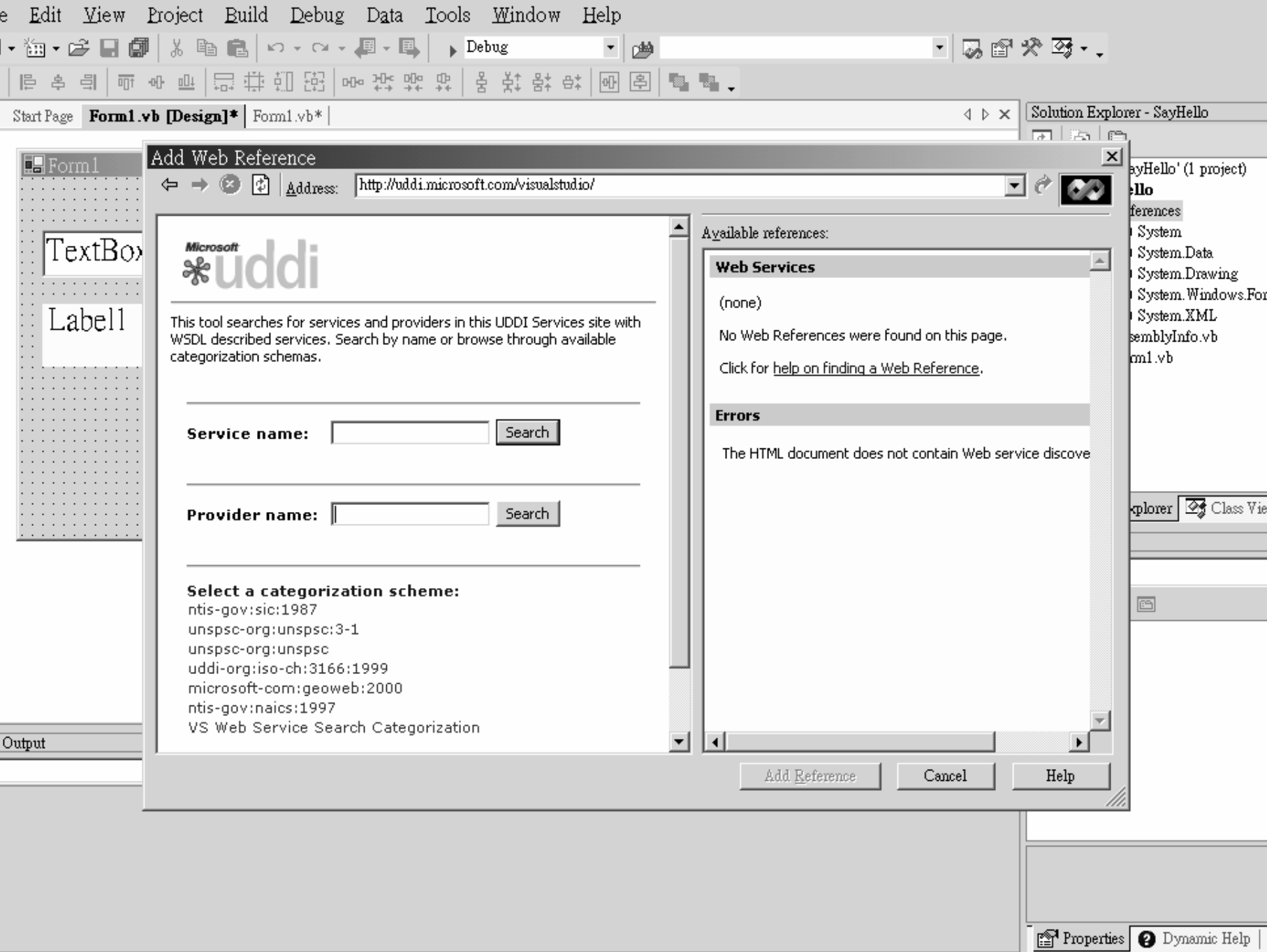
Query the UDDI Business Registry to find companies and production Web Services.

 **UDDI** Universal Description Discovery Integration
[Test Microsoft UDDI Directory](#)

Locate test Web Services to use during development.

Available references:





Add Web Reference

Address: http://uddi.microsoft.com/visualstudio/



This tool searches for services and providers in this UDDI Services site with WSDL described services. Search by name or browse through available categorization schemas.

Service name: Search

Provider name: Search

Select a categorization scheme:

- ntis-gov:sic:1987
- unspsc-org:unspsc:3-1
- unspsc-org:unspsc
- uddi-org:iso-ch:3166:1999
- microsoft-com:geoweb:2000
- ntis-gov:naics:1997
- VS Web Service Search Categorization

Available references:

Web Services

(none)

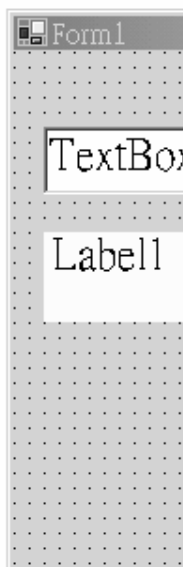
No Web References were found on this page.

Click for [help on finding a Web Reference](#).

Errors

The HTML document does not contain Web service discover

Add Reference Cancel Help



Add Web Reference

Address:

3 result(s) were found that begin with 'microsoft'.

[Click here to search again.](#)

To add references, click on the service you would like, then click on that service's corresponding interface definition, and then click the 'Add Reference' button below.

Microsoft Premier Support for Developers Germany

- + PSfD WebServices
- + PSfD WebServices

Microsoft WS-I Samples

- + Microsoft WS-I Retailer
- + Microsoft WS-I Warehouse A
- + Microsoft WS-I Warehouse B
- + Microsoft WS-I Warehouse C
- + Microsoft WS-I Manufacturer A
- + Microsoft WS-I Manufacturer B
- + Microsoft WS-I Manufacturer C

Available references:

Web Services

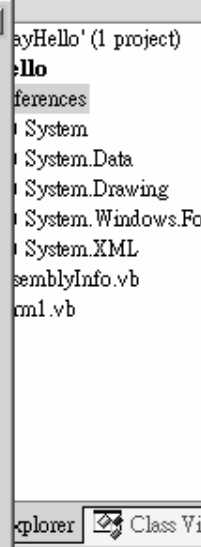
(none)

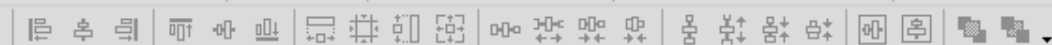
No Web References were found on this page.

[Click for help on finding a Web Reference.](#)

Errors

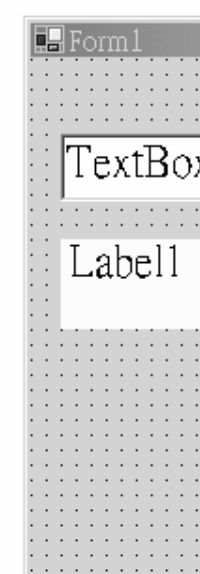
The HTML document does not contain Web service discover





Start Page Form1.vb [Design]* Form1.vb*

< > x Solution Explorer - SayHello



Add Web Reference

Address: <http://localhost/hello/hello.asmx>

Hello

The following operations are supported. For a formal definition, please review the [Service Description](#).

- [Hello](#)

This web service is using <http://tempuri.org/> as its default namespace.

Recommendation: Change the default namespace before the XML Web service is made public.

Each XML Web service needs a unique namespace in order for client applications to distinguish it from other services on the Web. <http://tempuri.org/> is available for XML Web services that are under development, but published XML Web services should use a more permanent namespace.

Your XML Web service should be identified by a namespace that you control. For example, you can use your company's Internet domain name as part of the namespace. Although many XML Web service namespaces look like URLs, they need not point to actual resources on the Web. (XML Web service namespaces are URIs.)

Available references:

Web Services

- <http://localhost/hello/hello.asmx?wsdl>
 - [View Contract](#)
 - [View Documentation](#)

Add Reference Cancel Help

SayHello' (1 project)
Hello
References
System
System.Data
System.Drawing
System.Windows.Forms
System.XML
AssemblyInfo.vb
Form1.vb

Solution Explorer Class View

Output



Add Web Reference

Address:

```

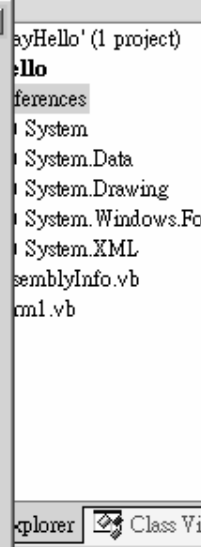
<?xml version="1.0" encoding="utf-8" ?>
- <definitions
  xmlns:http="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:s="http://www.w3.org/2001/XMLSchema"
  xmlns:s0="http://tempuri.org/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:tm="http://microsoft.com/wsdl/mime/textmime/"
  xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
  targetNamespace="http://tempuri.org/"
  xmlns="http://schemas.xmlsoap.org/wsdl/"
- <types>
  - <s:schema
    elementFormDefault="qualified"
    targetNamespace="http://tempuri.org/"
  - <s:element name="Hello">
    - <s:complexType>
      - <s:sequence>
        <s:element
          minOccurs="0"
          maxOccurs="1"
          name="strName"
          type="s:string" />
  
```

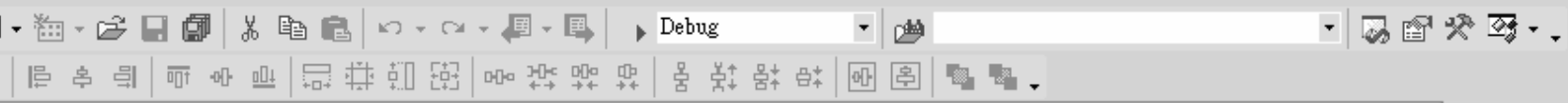
Available references:

Web Services

- http://localhost/hello/hello.asmx?wsdl
 - [View Contract](#)

Buttons: Add Reference, Cancel, Help





Start Page **Form1.vb [Design]*** Form1.vb*

Form1

TextBox1

Button

Label1

Solution Explorer - SayHello

Solution SayHello' (1 project)

- SayHello
 - References
 - System
 - System.Data
 - System.Drawing
 - System.Web.Services
 - System.Windows.Forms
 - System.XML
 - Web References
 - localhost
 - hello.wsdl
 - Reference.map
 - AssemblyInfo.vb
 - Form1.vb

Solution Explorer Class View

Properties

hello.wsdl File Properties

Advanced	
Build Action	None
Custom Tool	
Custom Tool Name	
Misc	
File Name	hello.wsdl
Full Path	C:\Documents and Settings\...

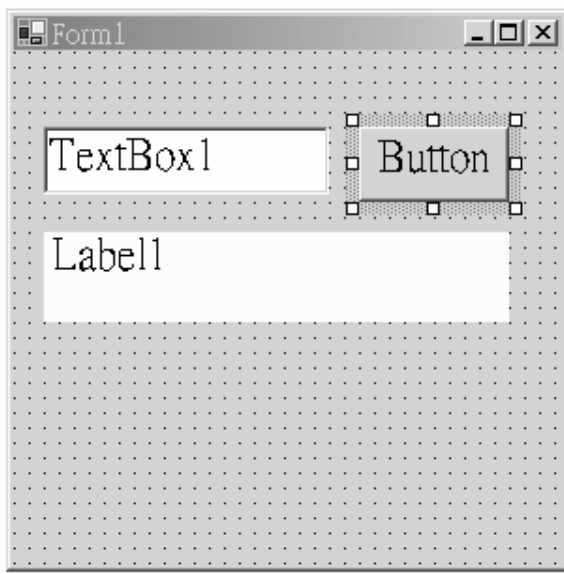
Output

Misc

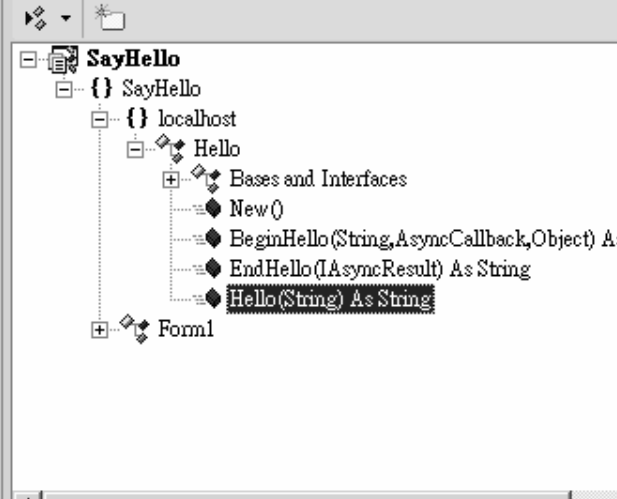
Properties Dynamic Help



Start Page **Form1.vb [Design]*** Form1.vb* | < > >>



Class View - SayHello

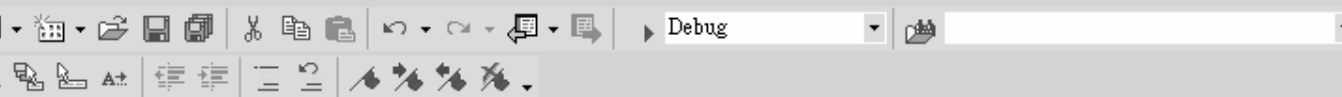


Solution Explorer Class View

Properties



Output + x



Start Page | Form1.vb [Design] | **Form1.vb**

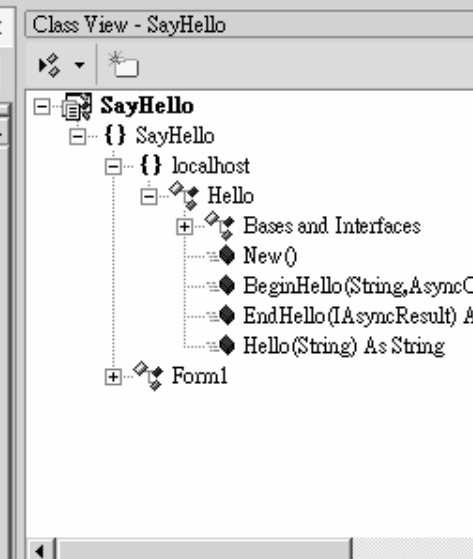
```

Form1
  (Declarations)
  Public Class Form1
    Inherits System.Windows.Forms.Form

    Windows Form Designer generated code

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
        Dim objHello As New localhost.Hello()

        Label1.Text = objHello.Hello(TextBox1.Text)
    End Sub
  End Class
  
```



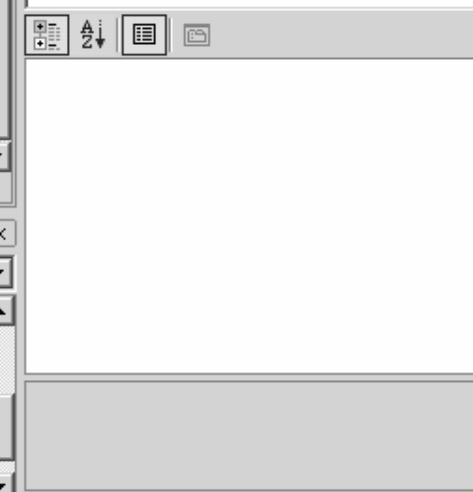
Solution Explorer | Class View

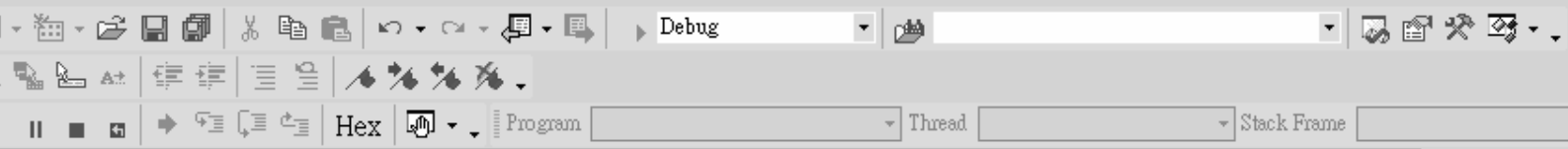
Output

Debug

```

'SayHello.exe': Loaded 'c:\winnt\assembly\gac\system.web.services\1.0.3300.0_b03f5f7f11d50a3a\...'
'SayHello.exe': Loaded 'c:\winnt\assembly\gac\system.xml\1.0.3300.0_b77a5c561934e089\...'
'SayHello.exe': Loaded 'c:\winnt\assembly\gac\system.web\1.0.3300.0_b03f5f7f11d50a3a\...'
'SayHello.exe': Loaded 'r2zcta_9', No symbols loaded.
'SayHello.exe': Loaded 'c:\winnt\assembly\gac\microsoft.visualbasic\7.0.3300.0_b03f5f7f11d50a3a\...'
The program '[1676] SayHello.exe' has exited with code 0 (0x0).
  
```





Start Page | Form1.vb [Design] | **Form1.vb**

```

Public Class Form1
    Inherits System.Windows.Forms.Form
    Private InitializeComponent()
    End Sub
End Class

```



```

Public Sub Hello(sender As System.Object,
                e As System.EventArgs)
    Label1.Text = "Hello" & TextBox1.Text
End Sub

```

Solution Explorer - SayHello

- Solution 'SayHello' (1 project)
 - SayHello
 - References
 - System
 - System.Data
 - System.Drawing
 - System.Web.Services
 - System.Windows.Forms
 - System.XML
 - Web References
 - localhost
 - hello.wsdl
 - Reference.map
 - AssemblyInfo.vb
 - Form1.vb

Value	Type

Name

- 料夾
- 桌面
- 我的文件
 - My Pictures
 - Visual Studio Projects
 - hello
 - SayHello
 - VSMacros
- 我的電腦
 - 3.5 軟碟機 (A:)
 - 本機磁碟 (C:)
 - 本機磁碟 (D:)
 - 光碟機 (E:)
 - MOBILEDISK (F:)
 - 控制台
 - 網路上的芳鄰
 - 資源回收筒
 - Internet Explorer

SayHello

Visual Studio Solution

修改日期: 2003/3/27 下午 11:23

大小: 912 個位元組

屬性: (一般)

名稱	大小	類型	修改日期
bin		檔案資料夾	2003/3/27 下午 11:40
obj		檔案資料夾	2003/3/27 下午 11:23
Web References		檔案資料夾	2003/3/27 下午 11:33
AssemblyInfo.vb	2 KB	Visual Basic Source	2003/3/27 下午 11:23
Form1.resx	6 KB	.NET XML Resource...	2003/3/27 下午 11:40
Form1.vb	4 KB	Visual Basic Source	2003/3/27 下午 11:40
SayHello.sln	1 KB	Visual Studio Solution	2003/3/27 下午 11:23
SayHello.vbproj	6 KB	Visual Basic .NET Pr...	2003/3/27 下午 11:40
SayHello.vbproj.user	2 KB	Visual Studio Project...	2003/3/27 下午 11:40