

# ASP.NET AJAX Using Visual Basic 2005

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**Meet the expert:** Scott Cate is the president of a technology company specializing in commercial ASP.NET applications. He is the co-author of the book "Beginning AJAX with ASP.NET" and leader of the Arizona .NET User Group, one of the largest and most active user group communities in the country. Scott has been selected as a Microsoft MVP for ASP.NET for several years in a row and is a member of ASP.NETInsiders.com, a group devoted to providing early feedback directly to the Microsoft ASP.NET Team.

**Prerequisites:** This course assumes you have a basic programming background and basic knowledge of Visual Basic, HTML, CSS, JavaScript, and building Web-based applications using Visual Studio 2005.

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**Course description:** In tMicrosoft has provided the ASP.NET AJAX Extensions, a set of assemblies based on the .NET Framework 2.0, which makes AJAX style web programming extremely simple. A task that used to take weeks; is now simplified to a drag and drop operation. This course quickly dives into the history of AJAX and the simplification of AJAX made possible with the ASP.NET AJAX Extensions. You'll learn how to make partial page updates, work with Web Services in JavaScript, advanced AJAX debugging techniques, and more.

## Course outline:

### Introduction to AJAX

- Introduction
- AJAX Terminology
- Making AJAX Easy
- Adding JavaScript
- LoadFamily
- Reviewing the Code
- Partial Page Update
- DHTML and AJAX
- Using Arrays
- Summary

### Introducing JSON

- Introduction
- What is JSON?
- Construct a JSON Object
- Using JSON
- Names Array
- Running the Name Array
- JSON Tips
- Prototypes and Enclosures
- Prototypes v. Enclosures
- Memory Footprint
- Summary

### AJAX Framework Benefits

- Introduction
- ASP.NET AJAX Framework
- Demo: Web Service
- Demo: ConsumeProducts
- View web.config

- ConsumeProducts.aspx.js
- Demo: Fancy DataGrid
- DataGrid Problems
- Overview: UpdatePanel
- ScriptManager
- How Does It Work?
- New Framework Features
- StringBuilder Explained
- Review of AJAX Benefits
- Summary

### Script Manager

- Introduction
- Overview: ScriptManager
- Client Side Framework
- Add JavaScript File
- Load and View Script
- Use Debug Scripts
- ScriptReference ScriptMode
- ScriptManager ScriptMode
- Localization
- Add Resource File
- Register Resource File
- Add WebResource
- Load an Embedded Resource
- View Available Languages
- Summary

### Web Services

- Introduction
- Overview: Web Services

- Create Web Service
- ScriptMethod
- ScriptService
- Add ServiceReference
- Enhance the Sample
- View Support Files
- Add DropDownList
- Test DropDownList
- Add New WebService
- Add ScriptManager
- Create SelectCities
- Debug WebService
- Add Display Markup
- Test WebService
- How it all Works
- Summary

### ScriptManagerProxy

- Introduction
- Overview: ScriptManagerProxy
- Demo: ScriptManagerProxy
- Demo: Add User Control
- Browse Page
- Script Manager Benefits
- Executing Timed Events
- Demo: Add a Timer
- Code: Timer1\_Tick event
- View Timer Page
- Modify Server Callback

- Demo: Use Multiple Timers
- Summary

### UpdatePanel - Server

- Introduction
- Overview: UpdatePanel
- Demo: UpdatePanel
- Partial Page Update
- UpdatePanel Magic
- Multiple UpdatePanels
- Always v. Conditional Mode
- Block v. Inline Render
- Content Outside UpdatePanel
- Summary

### UpdatePanel - Client

- Introduction
- Overview: Client Events
- Demo: PageRequestManager
- sys.application.add\_init
- initializeRequest
- Debug Client Events
- pageLoaded code
- Use a Stringbuilder
- Summary

### Triggers / UpdateProgress

- Introduction
- Overview: Triggers
- Demo: Create a Trigger
- Add AsyncPostBack Trigger
- Add PostBack Trigger
- ChildrenAsTriggers

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- UpdateMode
- Add Triggers in Source View
- Overview: UpdateProgress Ctl
- Demo: UpdateProgress Ctl
- DisplayAfter Property
- AssociatedUpdatePanelID
- Multiple Update Panels
- Multiple Progress Ctls
- Summary

## Introducing Control Toolkit

- Introduction
- Overview: Control Toolkit
- Accordion
- AlwaysVisibleControl
- Animation/AutoComplete
- Calendar/CascadingDropDown
- ConfirmButton
- DropDown/DropShadow
- DynamicPopulate
- FilteredTextBox
- HoverMenu/ListSearch
- MaskedEdit/ModalPopup
- MutuallyExclusiveCheckbox
- NoBot/NumericUpDown
- PagingBulletedList
- PasswordStrength
- PopupControl
- Rating/ReorderList
- ResizableControl
- RoundedCorners/Slider
- SlideShow/Tabs
- TextBoxWatermark
- ToggleButton
- UpdatePanelAnimation
- ValidatorCallout
- Summary

## Using the Control Toolkit

- Introduction
- Five Popular Controls
- Demo: ListSearch
- Demo: PagingBulletedList
- Demo: AutoComplete
- Demo: ModalPopup
- Demo: RoundedCorners
- Summary

## ToolkitScriptManager

- Introduction
- Overview
- Demo: ScriptManager
- UpdatePanelAnimationExt.
- Create New Animation
- View Scripts Created

- Demo: ToolkitScriptManager
- Combine Scripts
- CombineScriptHandlerUrl
- Handler Explained
- Summary

## Using Toolkit Animations

- Introduction
- Toolkit Animation Extender
- Demo: Animations
- Add AnimationExtender
- Create Sequence
- Sequential Sequence
- Parallel Sequence
- AnimationTarget property
- Collapse/Resize Animation
- Expand/Resize Animation
- Naming Convention Tip
- scriptAction Sequence Event
- Add JavaScript Block
- enableAction Animation
- Add Sequence Animation
- Summary

## Build an AJAX App (Part 1)

- Introduction
- Task Overview
- View Setup App
- Create Master Page
- Add Reference to CSS
- Add Login Control
- ASP.NET Website Admin Tool
- Create New User
- Add Roles
- Include DB in Project
- Add LoginView Control
- Create Default.aspx Page
- View Default.aspx
- Create New Database
- Create DataSet
- Create Table Adapter
- Summary

## Build an AJAX App (Part 2)

- Introduction
- Task Overview
- Add GridView
- Configure DataSource
- Configure GridView
- Test Gridview
- Edit Gridview Columns
- View ObjectDataSource
- Insert New Data
- Add DetailsView
- Add LoginView Control

- Create Partial Page Postback
- Modify LoginView Control
- Summary

## Build an AJAX App (Part 3)

- Introduction
- Task Overview
- Add New Web Service
- Reference Web Service
- Submit Question Button
- Utilize ScriptMethod
- Add Callbacks
- Test the App
- Debug Web Service
- Summary

## Debug JavaScript

- Introduction
- Overview: Debug JavaScript
- Demo: Debug Sample
- View Page Source
- Attach to IE Process
- Types of Debuggers
- VS Script Explorer
- Test Breakpoint
- Overview: Visualizers
- Quick Watch Window
- Add a Watch
- ScriptManager ScriptMode
- Examine ScriptResource File
- Debug JavaScript File
- Sys.Stringbuilder
- Debug in Framework
- Summary

## Debug in Internet Explorer

- Introduction
- Overview: Debug in IE
- Demo: Debug in IE
- Nikhil's Web Dev Helper
- HTTP Logging
- Deserialize to JSON
- Script Console
- Sys.Debug
- Create Debug Scripts
- trace v. traceDump
- Script Class Browser
- Summary

## AJAX Client Library

- Introduction
- JavaScript Shortcuts
- Demo: JavaScript Shortcuts
- \$get shortcut
- \$addHandler shortcut
- \$removeHandler shortcut
- \$clearHandler shortcut

- JavaScript Extensions
- Demo: JavaScript Extensions
- Add JavaScript Reference
- Overview: Array
- Array.add
- Array.dequeue
- Array.insert
- Array.removeAt
- String Builder/String.format
- Number.parseLocale
- Summary

## Exploring Sys NameSpace

- Introduction
- Overview
- Application
- .StringBuilder
- append()
- toString()
- .Serialization.JavaScriptSerial...
- serialize()
- deserialize()
- PageRequestManager
- .UI.DomElement
- Summary

## Object Oriented AJAX

- Introduction
- Object Oriented AJAX
- Demo: OOP Demo
- Overview: OOP
- Register a Namespace
- Create Auto Class
- Create Class Instances
- Register the Auto Class
- Implement IDisposable
- Create Inheritance Chain
- Create Helper Functions
- View in Browser
- Object Inheritance
- Interfaces Explained
- Create IHighSpeed Interface
- Register IHighSpeed Interface
- Code to Implement Interface
- Summary

## Intro to Deployment

- Introduction
- Overview: Deployment
- Demo: Intro to Deployment
- Create New Web Site
- Explore Web Site Files
- New AJAX Web Application
- Explore the BIN Folder
- Deployment Options

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- Copy Web Site
- Publish Web Site
- Using Roeder's Reflector
- Publish Web Project
- Add Script Manager to Site
- AJAX 2.0 Extensions
- Global Assembly Cache (GAC)
- web.config File Settings
- Summary

## Database Deployment

- Introduction
- Overview: DB Deployment
- Demo: Deployment
- Create App Data Folder
- View Connection String
- Overview: DataDirectory
- Deployment Issues
- ASP.NET Web Admin Tool
- View machine.config
- aspnet\_regsql.exe
- Prepare Membership DB
- View Membership Tables
- Summary