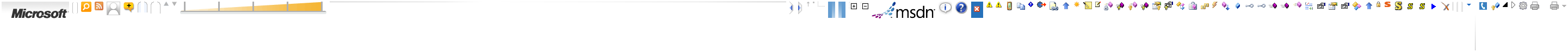
<http://www.youtube.com/watch?v=_hK8wD5rcMg&feature=related>

**ASP.NET Web Parts Controls**

**.NET Framework 4**

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ASP.NET Web Parts controls are an integrated set of controls for creating Web sites that enable end users to modify the content, appearance, and behavior of Web pages directly in a browser. The topics in this section provide information on what Web Parts are, how they work, and how to use them to create user-customizable ASP.NET Web pages.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**In This Section**](javascript:void(0))

[ASP.NET Web Parts Overview](http://msdn.microsoft.com/en-us/library/hhy9ewf1.aspx)

[Walkthrough: Creating a Web Parts Page](http://msdn.microsoft.com/en-us/library/sk23dydw.aspx)

[Web Parts ASP.NET Web Server Controls](http://msdn.microsoft.com/en-us/library/ms228013.aspx)

[Web Parts Page Display Modes](http://msdn.microsoft.com/en-us/library/f887s4cy.aspx)

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[Using ASP.NET Server Controls in Web Parts Applications](http://msdn.microsoft.com/en-us/library/ms227434.aspx)

[Web Parts Control Description Files](http://msdn.microsoft.com/en-us/library/ms227561.aspx)

[Creating a Data-Bound Web Parts Control](http://msdn.microsoft.com/en-us/library/ms227438.aspx)

[How to: Treat a User Control as a Web Parts Control](http://msdn.microsoft.com/en-us/library/w9b5ett0.aspx)

[How to: Enable Users to Import Web Parts Control Settings](http://msdn.microsoft.com/en-us/library/ms366512.aspx)

[How to: Export Web Parts Control Settings](http://msdn.microsoft.com/en-us/library/ms366729.aspx)

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Related Sections**](javascript:void(0))

[ASP.NET Web Pages](http://msdn.microsoft.com/en-us/library/fddycb06.aspx)

Provides information about how ASP.NET Web pages function and how to create and program them.

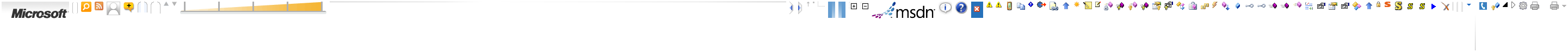
[ASP.NET Web Server Controls Overview](http://msdn.microsoft.com/en-us/library/zsyt68f1.aspx)

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**ASP.NET Web Parts Controls**

**.NET Framework 4**

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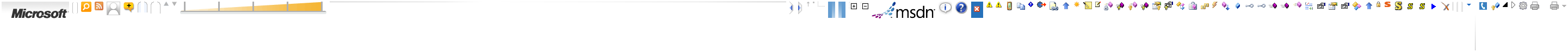
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# ASP.NET Web Parts Overview

**.NET Framework 4**

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ASP.NET Web Parts is an integrated set of controls for creating Web sites that enable end users to modify the content, appearance, and behavior of Web pages directly from a browser. The modifications can be applied to all users on the site or to individual users. When users modify pages and controls, the settings can be saved to retain a user's personal preferences across future browser sessions, a feature called personalization. These Web Parts capabilities mean that developers can empower end users to personalize a Web application dynamically, without developer or administrator intervention.

Using the Web Parts control set, you as a developer can enable end users to:

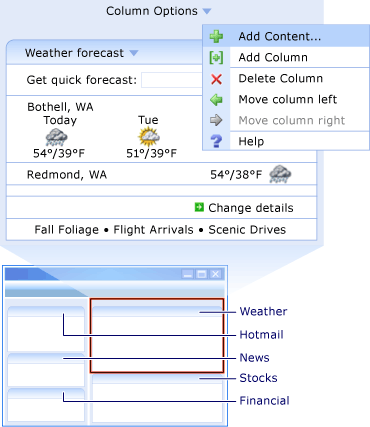
* Personalize page content. Users can add new Web Parts controls to a page, remove them, hide them, or minimize them like ordinary windows.
* Personalize page layout. Users can drag a Web Parts control to a different zone on a page, or change its appearance, properties, and behavior.
* Export and import controls. Users can import or export Web Parts control settings for use in other pages or sites, retaining the properties, appearance, and even the data in the controls. This reduces data entry and configuration demands on end users.
* Create connections. Users can establish connections between controls so that, for example, a chart control could display a graph for the data in a stock ticker control. Users could personalize not only the connection itself, but the appearance and details of how the chart control displays the data.
* Manage and personalize site-level settings. Authorized users can configure site-level settings, determine who can access a site or page, set role-based access to controls, and so on. For example, a user in an administrative role could set a Web Parts control to be shared by all users, and prevent users who are not administrators from personalizing the shared control.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Web Parts Essentials**](javascript:void(0))

The Web Parts control set consists of three main building blocks: personalization, user interface (UI) structural components, and actual Web Parts UI controls. For more details, see [Web Parts Control Set Overview](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx). Much of your development effort will focus on Web Parts controls, which are simply ASP.NET controls that can use the features of the Web Parts control set.

As an example of how Web Parts controls can be used to build personalizable Web pages, examine the following screen shot.

**Typical Web Parts page**



This page contains several basic elements of a Web Parts application:

* Use of zones for page layout. There are two columns that can contain controls: one has the Weather and Stock Quotes controls, the other has Hotmail and News controls. These columns in Web Parts terminology are called zones--regions on a page that contain Web Parts controls. Zones exist to lay out Web Parts controls on a page, and to provide a common UI for the controls. There can be one or many zones on a page, each zone can contain one or many Web Parts controls, and each zone can have a vertical or horizontal orientation for page layout.
* Web Parts controls within the zones. Each control has UI verbs (actions that a user can perform) that can appear as links, buttons, or clickable images on the control. In the preceding screen shot, notice that each control has a button in its title bar that exposes a drop-down menu. In the menus for each control are options to change details particular to that control, and other options to carry out common actions such as moving or deleting a control, and getting help. Some controls, such as the Weather control, allow users to personalize them so the controls display only information relevant to the user.
* Links to enable extensive personalization. These allow users to change the content, color, and layout of the page. For instance, if users click the **Add Column** link, a Web Parts application could enable them to add another column to a page. Or users could click the **Add Content** link, which displays a catalog of controls that that they can optionally add to the page. One of those could be a stock charting control. A user could add that control to one of the zones on the page, and could then connect it to the existing Stock Quotes control to chart the stock data it contains.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Developer Scenarios for Using Web Parts**](javascript:void(0))

You will typically work with Web Parts in one of three ways: creating pages that use Web Parts controls, creating individual Web Parts controls, or creating complete, personalizable Web applications, such as a portal.

### Page Development

Page developers can use visual design tools such as Microsoft Visual Studio 2005 to create pages that use Web Parts. One advantage in using a tool such as Visual Studio is that the Web Parts control set provides features for drag-and-drop creation and configuration of Web Parts controls in a visual designer. For example, you can use the designer to drag a Web Parts zone, or a Web Parts editor control, onto the design surface, and then configure the control right in the designer using the UI provided by the Web Parts control set. This can speed development of Web Parts applications and reduce the amount of code you have to write.

### Control Development

You can use any existing ASP.NET control as a Web Parts control, including standard Web server controls, custom server controls, and user controls. For maximum programmatic control of your environment, you can also create custom Web Parts controls that derive from the [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) class. For individual Web Parts control development, you will typically either create a user control and use it as a Web Parts control, or develop a custom Web Parts control.

As an example of developing a custom Web Parts control, you could create a control to provide any of the features provided by other ASP.NET server controls that might be useful to package as a personalizable Web Parts control: calendars, lists, financial information, news, calculators, rich text controls for updating content, editable grids that connect to databases, charts that dynamically update their displays, or weather and travel information. If you provide a visual designer with your control, then any page developer using Visual Studio can simply drag your control into a Web Parts zone and configure it at design time without having to write additional code.

### Web Application Development

Developing fully integrated and personalizable Web applications--such as a portal-- involves the most comprehensive use of Web Parts. You can develop a Web site that allows extensive user personalization of the UI and content--with features similar to [MSN](http://www.msn.com/). Or you can even develop a packaged application that can be shipped and used by companies or fee-based ISPs that provide portal hosting services.

In a Web application scenario, you could offer a complete solution for end users to manage and personalize the application. This could include a set of Web Parts controls that provide the desired features for the site, a consistent set of themes and styles that allow end users to personalize the UI in a consistent way, catalogs of Web Parts controls from which users can select the ones they want to appear on a page, authentication services, and role-based management (for example, allowing administrative users to personalize Web Parts controls and site settings for all users).

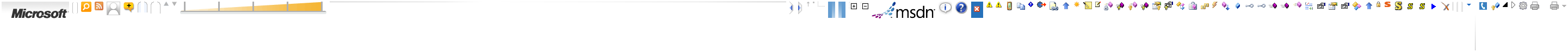
For each part of your application, you can extend the Web Parts control set as needed to provide greater control over the environment. For example, besides authoring custom Web Parts controls for the primary UI of your pages, you might also want to develop a custom Web Parts catalog that is consistent with the look and feel of your application, and gives users more flexibility to choose how controls are added to a page. Or you could extend a zone control to provide additional UI options for the Web Parts controls it contains. You could also write a custom personalization provider to give more flexibility and control over how the personalization data is stored and managed.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

# Walkthrough: Creating a Web Parts Page

**.NET Framework 4**

[Other Versions](javascript:;)



3 out of 30 rated this helpful [Rate this topic](http://msdn.microsoft.com/en-us/library/sk23dydw.aspx#feedback)

This walkthrough is a hands-on demonstration of the essential components and tasks for creating Web pages that use Web Parts controls in Visual Studio.

In many Web applications it is useful to be able to change the appearance of the content, as well as to allow users to select and arrange the content they want to see. ASP.NET Web Parts enable you to create Web pages that present modular content and that enable users to change the appearance and content to suit their preferences. For a general introduction to Web Parts, see [ASP.NET Web Parts Overview](http://msdn.microsoft.com/en-us/library/hhy9ewf1.aspx). For an overview of the Web Parts control set, see [Web Parts Control Set Overview](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx).

During this walkthrough, you create a page that uses Web Parts controls to create a Web page that user can modify, or personalize. Tasks illustrated in this walkthrough include:

* Adding Web Parts controls to a page.
* Creating a custom user control and using it as a Web Parts control.
* Enabling users to personalize the layout of the Web Parts controls on the page.
* Enabling users to edit the appearance of a Web Parts control.
* Enabling users to select from a catalog of available Web Parts controls.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Prerequisites**](javascript:void(0))

In order to complete this walkthrough, you will need:

* A site that can identify individual users. If you have a site already configured with ASP.NET membership, you can use that site for this walkthrough. Otherwise, the walkthrough provides instructions on how to configure your site to identify you by your Windows user account name.
* A visual design environment for creating Web pages. This walkthrough uses Visual Studio 2005.
* A configured personalization provider and database. Web Parts personalization is enabled by default, and it uses the SQL personalization provider ([SqlPersonalizationProvider](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.sqlpersonalizationprovider.aspx)) with Microsoft SQL Server Express Edition to store personalization data. This walkthrough uses SQL Server Express and the default SQL provider. If you have SQL Server Express installed, no configuration is needed. SQL Server Express is available with Microsoft Visual Studio 2005 as an optional part of the installation, or as a free download from Microsoft.com. To use a full version of SQL Server, you must install and configure an ASP.NET application services database, and configure the SQL personalization provider to connect to that database. For details, see [Creating and Configuring the Application Services Database for SQL Server](http://msdn.microsoft.com/en-us/library/2fx93s7w.aspx).

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Creating and Configuring the Web Site**](javascript:void(0))

This walkthrough requires that you have a user identity, so that your Web Parts settings can be keyed to you. If you already have a Web site configured to use membership, it is recommended that you use that site. Otherwise, you can create a new site and use your current Windows user name as your user identity.

|  |
| --- |
| **Note Note** |
| You do not need to do anything to enable Web Parts personalization; it is enabled by default for the Web Parts control set. When you first run a Web Parts page on a site, ASP.NET sets up a default personalization provider to store user personalization settings. For more information about personalization, see [Web Parts Personalization Overview](http://msdn.microsoft.com/en-us/library/z36h8be9.aspx). |

### To create a new Web site

* In Visual Studio, create a new ASP.NET Web site as described in [Walkthrough: Creating a Web Site with Membership and User Login](http://msdn.microsoft.com/en-us/library/879kf95c.aspx).

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Creating a Simple Page with Web Parts**](javascript:void(0))

In this part of the walkthrough, you create a page that uses Web Parts controls to show static content. The first step in working with Web Parts is to create a page with these elements:

* A [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) control, which coordinates all Web Parts controls.
* One or more zones, which are composite controls that contain [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) or other server controls and occupy a specified region of a page.

### To create a page for containing Web Parts controls

1. Close the default page and add a new page named **WebPartsDemo.aspx**.
2. Switch to **Design** view.
3. In the **View** menu, click **Visual Aids**, and then make sure that the **ASP.NET Non-Visual Controls** and **Margins and Padding** options are selected.

This enables you to see layout tags and controls that do not have a UI.

1. Position the insertion point in the **div** element.
2. From the **WebParts** tab of the **Toolbox**, drag a [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) control onto the page, between the newline character and the opening **<div>** tag.

The [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) control does not render any output, so it appears as a gray box on the designer surface.

1. Add a new line just after the [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) control.
2. In the **Block Format** list in the toolbar, select **Heading 1.**
3. In the heading, add the text "Web Parts Demonstration Page".
4. Add a new line after the text.
5. In the **Table** menu, click **Insert Table**, specify a table with one row and three columns, and then click **OK**.
6. Drag a [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) control into the left table column.
7. Right-click the [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) control, choose **Properties**, and set the following properties:

**ID** : "SidebarZone"

**HeaderText** : "Sidebar"

1. Drag a second [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) control into the middle table column and set the following properties:

**ID** : "MainZone"

**HeaderText** : "Main"

1. Save the file, but do not close it yet.

Your page now has two zones that you can control separately. However, neither zone has any content, so the next step is to create content. For this walkthrough, you work with Web Parts controls that display only static content.

The layout of a Web Parts zone is specified by a **ZoneTemplate** element. Inside the zone template, you can add any ASP.NET control, including a custom Web Parts control, a user control, or a server control. In this walkthrough, you use the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control to display static text. When you place a server control in a [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) zone, ASP.NET treats the control as a Web Parts control at run time, which enables Web Parts features for the control.

### To create content for the main zone

1. Switch to **Design** view.
2. From the **Standard** tab of the **Toolbox**, drag a [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control into the contents area of the zone whose **ID**property is set to MainZone.
3. Switch to **Source** view.

Notice that a **ZoneTemplate** element is added to wrap the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control in the MainZone zone.

1. Add an attribute named **title** to the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control and set its value to "Content".
2. Remove the **Text** attribute from the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control.
3. Inside the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control, add some text such as "<h2>Welcome to my Home Page</h2>".

The markup will look like the following example:

<asp:WebPartZone id="MainZone" runat="server" headertext="Main">

<ZoneTemplate>

<asp:Label ID="Label1" runat="server" Title="Content">

<h2>Welcome to My Home Page</h2>

</asp:Label>

</ZoneTemplate>

</asp:WebPartZone>

1. Save the file.

Next, you will create a user control that can also be added to the page as a Web Parts control.

### To create a user control

1. Add a new Web user control to your site and name it SearchUserControl.ascx. Make sure that the **Place source code in a separate file** is cleared.

This control will act as a search control.

|  |
| --- |
| **Note Note** |
| The user control for this walkthrough does not implement actual search functionality; it is used only to demonstrate Web Parts features. |

1. Switch to **Design** view.
2. From the **Standard** tab of the **Toolbox**, drag a [TextBox](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.textbox.aspx) control onto the page.
3. Add a blank line after the text box that you just added.
4. Drag a [Button](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.button.aspx) control onto the page and drop it below the text box.
5. Set the **Text** property of the [Button](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.button.aspx) control to "Search".
6. Switch to **Source** view.
7. Make sure that the markup for the user control looks like the following example:

**VB**

<%@ Control language="VB" classname="SearchUserControl" %>

<asp:TextBox runat="server" ID="TextBox1"></asp:TextBox>

<p>&nbsp;</p>

<asp:Button runat="server" ID="Button1" Text="Search" />

**C#**

<%@ Control language="C#" classname="SearchUserControl" %>

<asp:TextBox runat="server" ID="TextBox1"></asp:TextBox>

<p>&nbsp;</p>

<asp:Button runat="server" ID=" Button1" text="Search" />

1. Save and close the file.

|  |
| --- |
| **Security note Security Note** |
| This control has a text box that accepts user input, which is a potential security threat. User input in a Web page can potentially contain malicious client script. By default, ASP.NET Web pages validate user input to ensure that the input does not contain HTML elements or script. As long as this validation is enabled, you do not need to explicitly check for script or HTML elements in user input. For more information, see [Script Exploits Overview](http://msdn.microsoft.com/en-us/library/w1sw53ds.aspx). |

Now you can add Web Parts controls to the Sidebar zone. You will add two controls to the Sidebar zone. One contains a list of links, and the other is the user control you created earlier in the walkthrough. You create the links by using a [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) server control, similar to the way you created the static text for the Main zone. However, although the individual server controls contained in the user control could be contained directly in the zone (like the [Label](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.label.aspx) control), in this case they are not. Instead, they are part of the user control you created in the previous procedure. This demonstrates a common way to package controls and extra functionality in a user control, and then reference that control in a zone as a Web Parts control.

At run time, the Web Parts control set wraps both controls inside a [GenericWebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.genericwebpart.aspx) controls. The generic part control becomes the parent control, and you can access the server control through the parent control's [ChildControl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.genericwebpart.childcontrol.aspx)property. Using generic part controls enables standard Web server controls to have the same basic behavior and attributes as Web Parts controls that derive from the [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) class.

### To add Web Parts controls to the sidebar zone

1. Open the WebPartsDemo.aspx page.
2. Switch to **Design** view.
3. Drag the SearchUserControl.ascx user control from **Solution Explorer** into the SidebarZone zone.
4. Add an attribute named **title** to the user control element and set its value to "Search".
5. Save the WebPartsDemo.aspx page.
6. Switch to **Source** view.
7. Inside the **asp:WebPartZone** element for the SidebarZone zone, add a **Label** control that contains links. In the opening tag for the user control, add a **title** attribute with a value of "My Links".

The markup looks like the following example:

<asp:WebPartZone id="SidebarZone" runat="server"

headertext="Sidebar">

<ZoneTemplate>

<asp:Label runat="server" id="linksPart" title="My Links">

<a href="http://www.asp.net">ASP.NET site</a>

<br />

<a href="http://www.gotdotnet.com">GotDotNet</a>

<br />

<a href="http://www.contoso.com">Contoso.com</a>

<br />

</asp:Label>

<uc1:SearchUserControl id="SearchUserControl1" runat="server"

title="Search" />

</ZoneTemplate>

</asp:WebPartZone>

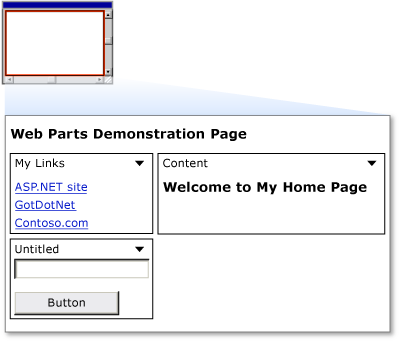
1. Save and close the file.

Now you can test the page.

### To test the page

* Load the page in a browser.

The page displays the two zones. The following figure shows the page.



In the title bar of each control is a down arrow that provides access to a verbs menu of actions that you can perform on a control. Click the verbs menu in one of the controls, and then click the **Minimize** verb and note that the control is minimized. From the verbs menu, click **Restore**, and the control returns to its normal size.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Enabling Users to Edit Pages and Change Layout**](javascript:void(0))

Web Parts lets users change the layout of Web Parts controls by dragging them from one zone to another. In addition to allowing users to move [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls from one zone to another, you can allow users to edit various characteristics of the controls, including their appearance, layout, and behavior. The Web Parts control set provides basic editing functionality for [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls. Although you will not do so in this walkthrough, you can also create custom editor controls that allow users to edit the features of [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls. As with changing the location of a[WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control, editing a control's properties relies on ASP.NET personalization to save the changes that users make.

In this part of the walkthrough, you add the ability for users to edit the basic characteristics of any [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control on the page. To enable these features, you add another custom user control to the page, along with an**asp:editorzone** element and two editing controls.

### To create a user control that enables changing page layout

1. In Visual Studio, in the **File** menu, click **New**, and then click **File**.
2. In the **Add New Item** dialog box, select **Web User Control**. Name the new file DisplayModeMenu.ascx. Clear the **Place source code in separate file** box.
3. Click **Add** to create the new control.
4. Switch to **Source** view.
5. Remove all the existing markup in the new file, and then paste in the following code.

This user control code uses features of the Web Parts control set that enable a page to change its view or display mode. It also enables you to change the physical appearance and layout of the page while you are in certain display modes.

**VB**

<%@ control language="vb" classname="DisplayModeMenuVB"%>

<script runat="server">

' Use a field to reference the current WebPartManager control.

Dim \_manager As WebPartManager

Sub Page\_Init(ByVal sender As Object, ByVal e As EventArgs)

AddHandler Page.InitComplete, AddressOf InitComplete

End Sub

Sub InitComplete(ByVal sender As Object, ByVal e As System.EventArgs)

\_manager = WebPartManager.GetCurrentWebPartManager(Page)

Dim browseModeName As String = \_

WebPartManager.BrowseDisplayMode.Name

' Fill the drop-down list with the names of supported display modes.

Dim mode As WebPartDisplayMode

For Each mode In \_manager.SupportedDisplayModes

Dim modeName As String = mode.Name

' Make sure a mode is enabled before adding it.

If mode.IsEnabled(\_manager) Then

Dim item As New ListItem(modeName, modeName)

DisplayModeDropdown.Items.Add(item)

End If

Next mode

' If Shared scope is allowed for this user, display the

' scope-switching UI and select the appropriate radio button

' for the current user scope.

If \_manager.Personalization.CanEnterSharedScope Then

Panel2.Visible = True

If \_manager.Personalization.Scope = \_

PersonalizationScope.User Then

RadioButton1.Checked = True

Else

RadioButton2.Checked = True

End If

End If

End Sub

' Change the page to the selected display mode.

Sub DisplayModeDropdown\_SelectedIndexChanged(ByVal sender As Object, \_

ByVal e As EventArgs)

Dim selectedMode As String = DisplayModeDropdown.SelectedValue

Dim mode As WebPartDisplayMode = \_

\_manager.SupportedDisplayModes(selectedMode)

If Not (mode Is Nothing) Then

\_manager.DisplayMode = mode

End If

End Sub

' Set the selected item equal to the current display mode.

Sub Page\_PreRender(ByVal sender As Object, ByVal e As EventArgs)

Dim items As ListItemCollection = DisplayModeDropdown.Items

Dim selectedIndex As Integer = \_

items.IndexOf(items.FindByText(\_manager.DisplayMode.Name))

DisplayModeDropdown.SelectedIndex = selectedIndex

End Sub

' Reset all of a user's personalization data for the page.

Protected Sub LinkButton1\_Click(ByVal sender As Object, \_

ByVal e As EventArgs)

\_manager.Personalization.ResetPersonalizationState()

End Sub

' If not in User personalization scope, toggle into it.

Protected Sub RadioButton1\_CheckedChanged(ByVal sender As \_

Object, ByVal e As EventArgs)

If \_manager.Personalization.Scope = \_

PersonalizationScope.Shared Then

\_manager.Personalization.ToggleScope()

End If

End Sub

' If not in Shared scope, and if user has permission, toggle the

' scope.

Protected Sub RadioButton2\_CheckedChanged(ByVal sender As \_

Object, ByVal e As EventArgs)

If \_manager.Personalization.CanEnterSharedScope AndAlso \_

\_manager.Personalization.Scope = \_

PersonalizationScope.User Then

\_manager.Personalization.ToggleScope()

End If

End Sub

</script>

<div>

<asp:Panel ID="Panel1" runat="server"

Borderwidth="1"

Width="230"

BackColor="lightgray"

Font-Names="Verdana, Arial, Sans Serif" >

<asp:Label ID="Label1" runat="server"

Text="&nbsp;Display Mode"

Font-Bold="true"

Font-Size="8"

Width="120" />

<asp:DropDownList ID="DisplayModeDropdown" runat="server"

AutoPostBack="true"

Width="120"

OnSelectedIndexChanged="DisplayModeDropdown\_SelectedIndexChanged" />

<asp:LinkButton ID="LinkButton1" runat="server"

Text="Reset User State"

ToolTip="Reset the current user's personalization data for

the page."

Font-Size="8"

OnClick="LinkButton1\_Click" />

<asp:Panel ID="Panel2" runat="server"

GroupingText="Personalization Scope"

Font-Bold="true"

Font-Size="8"

Visible="false" >

<asp:RadioButton ID="RadioButton1" runat="server"

Text="User"

AutoPostBack="true"

GroupName="Scope"

OnCheckedChanged="RadioButton1\_CheckedChanged" />

<asp:RadioButton ID="RadioButton2" runat="server"

Text="Shared"

AutoPostBack="true"

GroupName="Scope"

OnCheckedChanged="RadioButton2\_CheckedChanged" />

</asp:Panel>

</asp:Panel>

</div>

**C#**

<%@ control language="C#" classname="DisplayModeMenuCS"%>

<script runat="server">

// Use a field to reference the current WebPartManager control.

WebPartManager \_manager;

void Page\_Init(object sender, EventArgs e)

{

Page.InitComplete += new EventHandler(InitComplete);

}

void InitComplete(object sender, System.EventArgs e)

{

\_manager = WebPartManager.GetCurrentWebPartManager(Page);

String browseModeName = WebPartManager.BrowseDisplayMode.Name;

// Fill the drop-down list with the names of supported display modes.

foreach (WebPartDisplayMode mode in

\_manager.SupportedDisplayModes)

{

String modeName = mode.Name;

// Make sure a mode is enabled before adding it.

if (mode.IsEnabled(\_manager))

{

ListItem item = new ListItem(modeName, modeName);

DisplayModeDropdown.Items.Add(item);

}

}

// If Shared scope is allowed for this user, display the

// scope-switching UI and select the appropriate radio

// button for the current user scope.

if (\_manager.Personalization.CanEnterSharedScope)

{

Panel2.Visible = true;

if (\_manager.Personalization.Scope ==

PersonalizationScope.User)

RadioButton1.Checked = true;

else

RadioButton2.Checked = true;

}

}

// Change the page to the selected display mode.

void DisplayModeDropdown\_SelectedIndexChanged(object sender,

EventArgs e)

{

String selectedMode = DisplayModeDropdown.SelectedValue;

WebPartDisplayMode mode =

\_manager.SupportedDisplayModes[selectedMode];

if (mode != null)

\_manager.DisplayMode = mode;

}

// Set the selected item equal to the current display mode.

void Page\_PreRender(object sender, EventArgs e)

{

ListItemCollection items = DisplayModeDropdown.Items;

int selectedIndex =

items.IndexOf(items.FindByText(\_manager.DisplayMode.Name));

DisplayModeDropdown.SelectedIndex = selectedIndex;

}

// Reset all of a user's personalization data for the page.

protected void LinkButton1\_Click(object sender, EventArgs e)

{

\_manager.Personalization.ResetPersonalizationState();

}

// If not in User personalization scope, toggle into it.

protected void RadioButton1\_CheckedChanged(object sender, EventArgs e)

{

if (\_manager.Personalization.Scope ==

PersonalizationScope.Shared)

\_manager.Personalization.ToggleScope();

}

// If not in Shared scope, and if user has permission, toggle

// the scope.

protected void RadioButton2\_CheckedChanged(object sender,

EventArgs e)

{

if (\_manager.Personalization.CanEnterSharedScope &&

\_manager.Personalization.Scope ==

PersonalizationScope.User)

\_manager.Personalization.ToggleScope();

}

</script>

<div>

<asp:Panel ID="Panel1" runat="server"

Borderwidth="1"

Width="230"

BackColor="lightgray"

Font-Names="Verdana, Arial, Sans Serif" >

<asp:Label ID="Label1" runat="server"

Text="&nbsp;Display Mode"

Font-Bold="true"

Font-Size="8"

Width="120" />

<asp:DropDownList ID="DisplayModeDropdown" runat="server"

AutoPostBack="true"

Width="120"

OnSelectedIndexChanged="DisplayModeDropdown\_SelectedIndexChanged" />

<asp:LinkButton ID="LinkButton1" runat="server"

Text="Reset User State"

ToolTip="Reset the current user's personalization data for

the page."

Font-Size="8"

OnClick="LinkButton1\_Click" />

<asp:Panel ID="Panel2" runat="server"

GroupingText="Personalization Scope"

Font-Bold="true"

Font-Size="8"

Visible="false" >

<asp:RadioButton ID="RadioButton1" runat="server"

Text="User"

AutoPostBack="true"

GroupName="Scope"

OnCheckedChanged="RadioButton1\_CheckedChanged" />

<asp:RadioButton ID="RadioButton2" runat="server"

Text="Shared"

AutoPostBack="true"

GroupName="Scope"

OnCheckedChanged="RadioButton2\_CheckedChanged" />

</asp:Panel>

</asp:Panel>

</div>

1. Save the file.

|  |
| --- |
| **Note Note** |
| Although this user control can enable users of the Web Parts page to toggle between shared and user-personalization mode, the personalization feature requires the user to have appropriate permissions, as specified in the Web.config file. This walkthrough does not illustrate how to grant these rights, so the feature is not enabled. Therefore, the User and Shared radio buttons on the user control are hidden when you run the page. For more information on personalization, see [Web Parts Personalization](http://msdn.microsoft.com/en-us/library/ms178182.aspx). |

### To enable users to change the layout

1. Open the WebPartsDemo.aspx page.
2. Switch to **Design** view.
3. Add a blank line after the "Web Parts Demonstration Page" text that you added earlier.
4. From **Solution Explorer**, drag the DisplayModeMenu.ascx user control into the WebPartsDemo.aspx page and drop it on the blank line.
5. From the **WebParts** tab of the **Toolbox**, drag an [EditorZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorzone.aspx) control to the remaining open table cell in the WebPartsDemo.aspx page.
6. From the **WebParts** tab of the **Toolbox**, drag an [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) control and a [LayoutEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.layouteditorpart.aspx) control into the [EditorZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorzone.aspx) control.
7. Switch to **Source** view.

The resulting markup in the table cell will look similar to the following code:

<td valign="top">

<asp:EditorZone ID="EditorZone1" runat="server">

<ZoneTemplate>

<asp:AppearanceEditorPart ID="AppearanceEditorPart1"

runat="server" />

<asp:LayoutEditorPart ID="LayoutEditorPart1" runat="server" />

</ZoneTemplate>

</asp:EditorZone>

</td>

|  |
| --- |
| **NoteNote** |
| Although the [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) and [LayoutEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.layouteditorpart.aspx) controls are used in this walkthrough, the[BehaviorEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.behavioreditorpart.aspx) and [PropertyGridEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.propertygrideditorpart.aspx) controls are not, because they require setup beyond the scope of this walkthrough. |

1. Save the WebPartsDemo.aspx file.

You have created a user control that lets you change display modes and change page layout, and you have referenced the control on the primary Web page. You can now test the capability to edit pages and change layout.

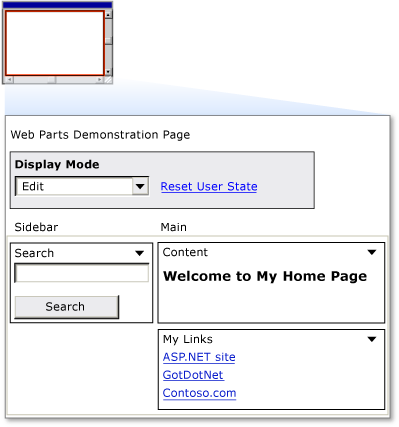
### To test layout changes

1. Load the page in a browser.
2. In the **Display Mode** menu, click **Edit**.

The zone titles are displayed.

1. Drag the **My Links** control by its title bar from the Sidebar zone to the bottom of the Main zone.

The page will look like the following:



1. Click **Display Mode**, and then click **Browse**.

The page is refreshed, the zone names disappear, and the **My Links** control remains where you positioned it.

1. To demonstrate that personalization is working, close the browser, and then load the page again. The changes you made are saved for future browser sessions.
2. In the **Display Mode** menu, click **Edit**.

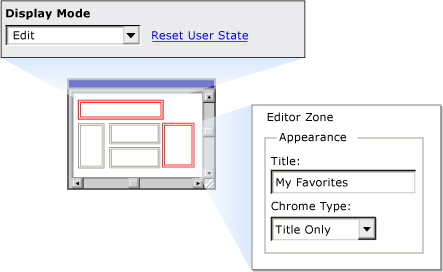
Each control on the page is now displayed with a down arrow in its title bar, which contains the verbs drop-down menu.

1. Click the arrow to display the verbs menu on the **My Links** control and then click **Edit**.

The [EditorZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorzone.aspx) control appears. It displays the [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) controls that you added.

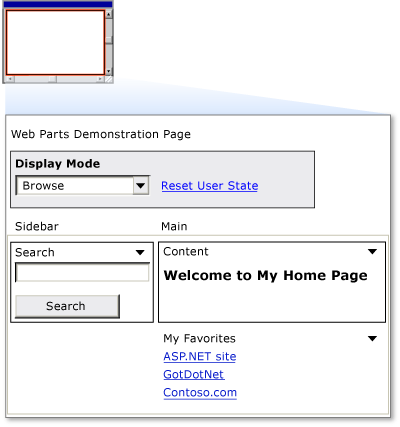
1. In the **Appearance** section of the edit control, change the title to **My Favorites**. In the **Chrome Type** list, select**Title Only**, and then click **Apply**.

The following figure shows the page in edit mode.



1. In the **Display Mode** menu, click **Browse** to return to browse mode.

The control now has an updated title and no border, as shown in the following figure.



[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Adding Web Parts at Run Time**](javascript:void(0))

You can also enable users to add Web Parts controls to their page at run time. To do so, configure the page with a Web Parts catalog, which contains a list of Web Parts controls that you want to make available to users.

|  |
| --- |
| **Note Note** |
| In this walkthrough, you create a template containing [FileUpload](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.fileupload.aspx) and [Calendar](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.calendar.aspx) controls. This will allow you to test the basic functionality of the catalog, but the resulting Web Parts controls do not have any real functionality. If you have a custom Web or user control, you can substitute it for the static content. |

### To allow users to add Web Parts at run time

1. Open the WebPartsDemo.aspx page.
2. Switch to Source view.
3. From the **WebParts** tab of the Toolbox, drag a [CatalogZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogzone.aspx) control into the right column of the table, beneath the [EditorZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorzone.aspx) control.

Both controls can be in the same table cell because they will not be displayed at the same time.

1. In the Properties pane, assign the string **Add Web Parts** to the **HeaderText** property of the [CatalogZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogzone.aspx)control.
2. Switch to Design view
3. From the **WebParts** tab of the Toolbox, drag a [DeclarativeCatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.declarativecatalogpart.aspx) control into the content area of the[CatalogZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogzone.aspx) control.
4. Click the arrow in the upper right corner of the [DeclarativeCatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.declarativecatalogpart.aspx) control to expose its Tasks menu, and then select **Edit Templates**.
5. From the **Standard** tab of the Toolbox, drag a [FileUpload](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.fileupload.aspx) control and a [Calendar](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.calendar.aspx) control into the**WebPartsTemplate** section of the [DeclarativeCatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.declarativecatalogpart.aspx) control.
6. Switch to **Source** view and inspect the source code of the **CatalogZone** control.

Notice that the [DeclarativeCatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.declarativecatalogpart.aspx) control contains a **WebPartsTemplate** element with the two enclosed server controls that you will be able to add to your page from the catalog.

|  |
| --- |
| **Note Note** |
| If you have a custom control, this is the place to substitute it for one of the server controls in the example, although this requires steps beyond the scope of this walkthrough. For further details, see the code example in the documentation for the [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) class. |

1. Add a **Title** property to each of the controls that you added to the catalog, and set the property to the names shown in the following example. Even though the title is not a property you can normally set for these controls at design time, when a user adds these controls to a [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) zone from the catalog at run time, they are each wrapped with a [GenericWebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.genericwebpart.aspx) control. This enables them to act as Web Parts controls. Therefore, they will be able to display titles.

The markup for the controls contained in the [DeclarativeCatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.declarativecatalogpart.aspx) control will look like the following example:

<asp:DeclarativeCatalogPart ID="DeclarativeCatalogPart1"

runat="server">

<WebPartsTemplate>

<asp:Calendar ID="Calendar1"

runat="server"

title="My Calendar" />

<asp:FileUpload ID="FileUpload1"

runat="server"

title="Upload Files" />

</WebPartsTemplate>

</asp:DeclarativeCatalogPart>

1. Save the page.

You can now test the catalog.

### To test the Web Parts catalog

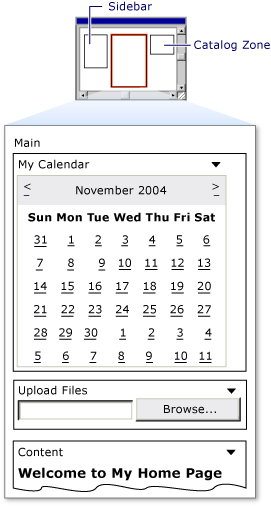
1. Load the page in a browser.
2. In the **Display Mode** menu, click **Catalog**.

The catalog titled **Add Web Parts** is displayed.

1. Drag the **My Favorites** control from the Main zone back to the top of the Sidebar zone.
2. In the **Add Web Parts** catalog, select both check boxes, and then select **Main** from the list of available zones
3. Click **Add** in the catalog.

The controls are added to the Main zone. If you want, you can add multiple instances of controls from the catalog to your page. The following figure shows the page with the file upload control and the calendar in theMain zone:

**Controls added to Main zone from the catalog**



1. In the **Display Mode** menu, click **Browse**.

The catalog disappears and the page is refreshed.

1. Close the browser and then load the page again.

The changes you made persist.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Next Steps**](javascript:void(0))

This walkthrough has illustrated the basic principles of using Web Parts controls on an ASP.NET Web page. Suggestions for further exploration include:

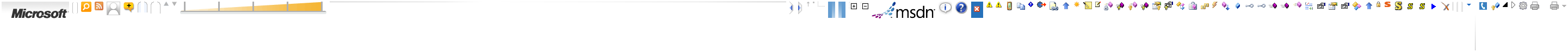
* Create Web Parts controls that offer more sophisticated functionality than the static Web Parts from this walkthrough. You can create Web Parts controls as user controls or custom controls. For details, see the documentation for the [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) class.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

**Web Parts ASP.NET Web Server Controls**

**.NET Framework 4**

[Other Versions](javascript:;)



This topic has not yet been rated [Rate this topic](http://msdn.microsoft.com/en-us/library/ms228013.aspx#feedback)

This section contains topics that describe the ASP.NET server controls you can use to display Web Parts on a Web page.

For complete syntax information for Web server controls, see [Web Server Control Syntax](http://msdn.microsoft.com/en-us/library/zfzfkea6.aspx).

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**In This Section**](javascript:void(0))

[Web Parts Control Set Overview](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx)

[AppearanceEditorPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366716.aspx)

[BehaviorEditorPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366717.aspx)

[CatalogZone Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366511.aspx)

[ConnectionsZone Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366708.aspx)

[DeclarativeCatalogPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366722.aspx)

[EditorZone Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366516.aspx)

[ImportCatalogPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366758.aspx)

[LayoutEditorPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366711.aspx)

[PageCatalogPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366721.aspx)

[PropertyGridEditorPart Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366513.aspx)

[ProxyWebPartManager Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366707.aspx)

[WebPartManager Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366728.aspx)

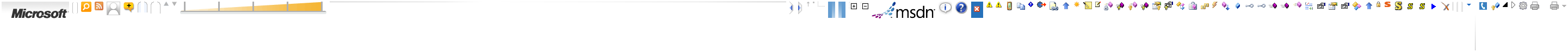
[WebPartZone Web Server Control Overview](http://msdn.microsoft.com/en-us/library/ms366534.aspx)

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Related Sections**](javascript:void(0))

**Web Parts Control Set Overview**

**.NET Framework 4**

[Other Versions](javascript:;)



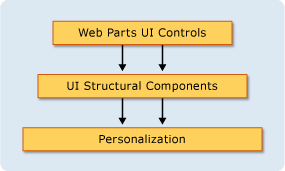
1 out of 1 rated this helpful [Rate this topic](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx#feedback)

The ASP.NET Web Parts control set is a group of components that work together to enable you to create Web pages on which end users can modify the appearance and behavior of the user interface (UI) directly from a browser. This overview covers the fundamental aspects of the Web Parts control set, including a description of the most frequently used and [essential Web Parts components](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx#EssentialControls) needed to create a Web Parts page.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Categories of Web Parts Components**](javascript:void(0))

The Web Parts control set consists of three fundamental building blocks: personalization capabilities, UI structural components required for using Web Parts UI controls on a page, and the Web Parts UI controls themselves. The following diagram illustrates the relationships among these building blocks in the Web Parts control set.

**Web Parts controls hierarchy**



Personalization is the foundation of the Web Parts feature. It enables users to modify--or personalize--the layout, appearance, and behavior of Web Parts controls on a page. The personalized settings are long-lived: they are persisted not just during the current browser session (as with view state), but also in long-term storage, so that a user's settings are saved for future browser sessions as well. Personalization is enabled by default for Web Parts pages. For more details on personalization, see [Web Parts Personalization Overview](http://msdn.microsoft.com/en-us/library/z36h8be9.aspx).

The UI structural components rely on personalization and provide the core structure and services needed by all Web Parts controls. One UI structural component required on every Web Parts page is the [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) control. Although never visible, this control has the critical task of coordinating all Web Parts controls on a page. For example, it tracks all the individual Web Parts controls. It manages Web Parts zones (regions that contain Web Parts controls on a page), and which controls are in which zones. It also tracks and controls the different display modes a page can be in, such as browse, connect, edit, or catalog mode, and whether personalization changes apply to all users or to individual users. Finally, it initiates and tracks connections and communication between Web Parts controls.

The second kind of UI structural component is the zone. Zones act as layout managers on a Web Parts page. They contain and organize controls that derive from the [Part](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.part.aspx) class (part controls), and provide the ability to do modular page layout in either horizontal or vertical orientation. Zones also offer common and consistent UI elements (such as header and footer style, title, border style, action buttons, and so on) for each control they contain; these common elements are known as the chrome of a control. Several specialized types of zones are used in the different display modes and with various controls. The different types of zones are described in the [Web Parts Essential Controls](http://msdn.microsoft.com/en-us/library/k3w2y2tf.aspx#EssentialControls)section below.

The Web Parts UI controls, all of which derive from the [Part](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.part.aspx) class, comprise the primary UI on a Web Parts page. The Web Parts control set is flexible and inclusive in the options it gives you for creating part controls. In addition to creating your own custom Web Parts controls, you can also use existing ASP.NET server controls, user controls, or custom server controls as Web Parts controls. For more details on the variety of ways in which you can use server controls as Web Parts controls, see [ASP.NET Web Parts Overview](http://msdn.microsoft.com/en-us/library/hhy9ewf1.aspx). The essential controls that are most commonly used for creating Web Parts pages are described in the next section.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Web Parts Essential Controls**](javascript:void(0))

The Web Parts control set is extensive, but some controls are essential either because they are required for Web Parts to work, or because they are the controls most frequently used on Web Parts pages. As you begin using Web Parts and creating basic Web Parts pages, it is helpful to be familiar with the essential Web Parts controls described in the following table.

|  |  |
| --- | --- |
| Web Parts control | Description |
| [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx) | Manages all Web Parts controls on a page. One (and only one) [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx)control is required for every Web Parts page. |
| [CatalogZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogzone.aspx) | Contains [CatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogpart.aspx) controls. Use this zone to create a catalog of Web Parts controls from which users can select controls to add to a page. |
| [EditorZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorzone.aspx) | Contains [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) controls. Use this zone to enable users to edit and personalize Web Parts controls on a page. |
| [WebPartZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartzone.aspx) | Contains and provides overall layout for the [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls that compose the main UI of a page. Use this zone whenever you create pages with Web Parts controls. Pages can contain one or more zones. |
| [ConnectionsZone](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.connectionszone.aspx) | Contains [WebPartConnection](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartconnection.aspx) controls, and provides a UI for managing connections.. |
| [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx)  ([GenericWebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.genericwebpart.aspx)) | Renders the primary UI; most Web Parts UI controls fall into this category.  For maximum programmatic control, you can create custom Web Parts controls that derive from the base [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control.  You can also use existing server controls, user controls, or custom controls as Web Parts controls. Whenever any of these controls are placed in a zone, the [WebPartManager](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartmanager.aspx)control automatically wraps them with [GenericWebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.genericwebpart.aspx) controls at run time so that you can use them with Web Parts functionality. |
| [CatalogPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.catalogpart.aspx) | Contains a list of available Web Parts controls that users can add to the page. |
| [WebPartConnection](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpartconnection.aspx) | Creates a connection between two Web Parts controls on a page. The connection defines one of the Web Parts controls as a provider (of data), and the other as a consumer. |
| [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) | Serves as the base class for the specialized editor controls. |
| [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) controls  ([AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx),[LayoutEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.layouteditorpart.aspx),[BehaviorEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.behavioreditorpart.aspx), and[PropertyGridEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.propertygrideditorpart.aspx)) | Allow users to personalize various aspects of Web Parts UI controls on a page. |

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

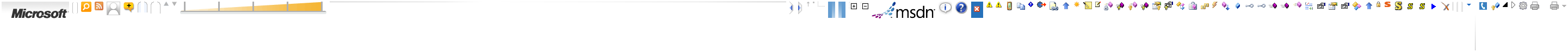
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# AppearanceEditorPart Web Server Control Overview

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The [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) Web server control provides an editor control that enables end users to edit several user interface (UI) properties on an associated [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control.

This topic contains:

* [Background](http://msdn.microsoft.com/en-us/library/ms366716.aspx#Background)
* [Code Examples](http://msdn.microsoft.com/en-us/library/ms366716.aspx#CodeExamples)
* [Class Reference](http://msdn.microsoft.com/en-us/library/ms366716.aspx#ClassReference)

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Background**](javascript:void(0))

The [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) control enables end users to edit several UI properties of a [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control. The following table lists user customizable features and corresponding [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control property values that are editable by using the [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) control.

|  |  |
| --- | --- |
| User Customizable Feature | WebPart Control Property |
| Set the text for the title. | [Title](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.part.title.aspx) |
| Select the title and border option type. | [ChromeType](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.part.chrometype.aspx) |
| Select the direction that content flows on the page. | [Direction](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.direction.aspx) |
| Set the height and units. | [Height](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.height.aspx) |
| Set the width and units. | [Width](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.width.aspx) |
| Hide or show the control. | [Hidden](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.hidden.aspx) |

To enable editing of other properties and of the behavior of [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls, you can use the other [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx)controls supplied with the Web Parts control set. These controls include the [BehaviorEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.behavioreditorpart.aspx), the [LayoutEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.layouteditorpart.aspx), and the [PropertyGridEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.propertygrideditorpart.aspx) controls. The built-in [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) controls provide commonly used editing features for[WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) controls. You can also create a custom editor control by inheriting from the [EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx) class. For a code example, see [System.Web.UI.WebControls.WebParts.EditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.editorpart.aspx).

### Enabling an AppearanceEditorPart Control

The [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) control is displayed only when a Web Parts page is in edit mode and when the user has selected an associated [WebPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.webpart.aspx) control for editing. For more information, see [Walkthrough: Changing Display Modes on a Web Parts Page](http://msdn.microsoft.com/en-us/library/bw5tctbb.aspx).

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[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Code Examples**](javascript:void(0))

[Walkthrough: Creating a Web Parts Page](http://msdn.microsoft.com/en-us/library/sk23dydw.aspx)

[How to: Treat a User Control as a Web Parts Control](http://msdn.microsoft.com/en-us/library/w9b5ett0.aspx)

[How to: Provide Optional Web Parts Controls](http://msdn.microsoft.com/en-us/library/ms366710.aspx)

[How to: Enable Users to Import Web Parts Control Settings](http://msdn.microsoft.com/en-us/library/ms366512.aspx)

[How to: Export Web Parts Control Settings](http://msdn.microsoft.com/en-us/library/ms366729.aspx)

[How to: Build and Run the Data-bound Web Parts Control Example](http://msdn.microsoft.com/en-us/library/ms227667.aspx)

[Walkthrough: Changing Display Modes on a Web Parts Page](http://msdn.microsoft.com/en-us/library/bw5tctbb.aspx)

[How to: Set the Display Mode of a Web Parts Page](http://msdn.microsoft.com/en-us/library/ms366533.aspx)

[Walkthrough: Implementing Web Parts Personalization with a User Control](http://msdn.microsoft.com/en-us/library/784d8z92.aspx)

[Walkthrough: Implementing Web Parts Personalization using IPersonalizable](http://msdn.microsoft.com/en-us/library/ms366720.aspx)

[How to: Enable Shared Personalization of Web Parts Pages](http://msdn.microsoft.com/en-us/library/ms178183.aspx)

[How to: Disable Web Parts Personalization](http://msdn.microsoft.com/en-us/library/083486e0.aspx)

[How to: Create Personalizable Properties on a Web Parts Control](http://msdn.microsoft.com/en-us/library/ms366706.aspx)

[How to: Remove User Entries from the Personalization Store](http://msdn.microsoft.com/en-us/library/ms366517.aspx)

[How to: Enable Users to Clear Personalization State](http://msdn.microsoft.com/en-us/library/ms366727.aspx)

[How to: Declare a Static Connection between Two Web Parts Controls](http://msdn.microsoft.com/en-us/library/ms178188.aspx)

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[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Class Reference**](javascript:void(0))

[System.Web.UI.WebControls.WebParts.AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx)

Provides the class definition of the [AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx) Web server control.

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[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

#### Reference

[AppearanceEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.appearanceeditorpart.aspx)

[System.Web.UI.WebControls.WebParts](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.aspx)

[BehaviorEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.behavioreditorpart.aspx)

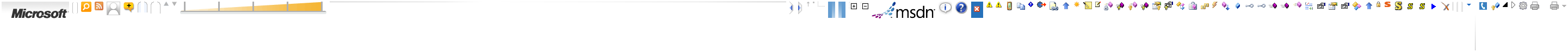
[LayoutEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.layouteditorpart.aspx)

[PropertyGridEditorPart](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webparts.propertygrideditorpart.aspx)

**Web Server Control Syntax**

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The following topics describe the ASP.NET declarative syntax that you use when creating a Web server control in a text or HTML editor. These topics include the properties that are shared among all Web server controls, as well as specific properties for each control.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**In This Section**](javascript:void(0))

[Base Web Server Control Properties](http://msdn.microsoft.com/en-us/library/8xxf2y53.aspx)

[Style Properties](http://msdn.microsoft.com/en-us/library/kede6a7s.aspx)

[AccessDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228315.aspx)

[AdRotator Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/s5z9ks4y.aspx)

[BulletedList Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228356.aspx)

[Button Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dx5ybk93.aspx)

[Calendar Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dxf9k8sh.aspx)

[ChangePassword Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228266.aspx)

[CheckBox Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/4s78d0k1.aspx)

[CheckBoxList Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/8bw4x4wa.aspx)

[Content Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228116.aspx)

[ContentPlaceHolder Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228106.aspx)

[CreateUserWizard Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228129.aspx)

[DataGrid Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/64xx84kc.aspx)

[DataList Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/yfx4t9t7.aspx)

[DataPager Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb882591.aspx)

[DetailsView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228335.aspx)

[DropDownList Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/0dzka5sf.aspx)

[DynamicControl Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/cc679101.aspx)

[DynamicDataManager Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/cc679063.aspx)

[DynamicField Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dd393801.aspx)

[DynamicFilter Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dd409219.aspx)

[DynamicHyperLink Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dd409245.aspx)

DynamicValidator Web Server Control Declarative Syntax

[EntityDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/cc837116.aspx)

[FileUpload Web Server Control Declarative](http://msdn.microsoft.com/en-us/library/ms228327.aspx)

[FilterRepeater Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/cc679059.aspx)

[FormView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228324.aspx)

[GridView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228113.aspx)

[HiddenField Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228301.aspx)

[HyperLink Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/k0b15efk.aspx)

[Image Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/c6te4s54.aspx)

[ImageButton Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/1z8fsbyh.aspx)

[ImageMap Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228325.aspx)

[Label Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/2wwfb06z.aspx)

[LinkButton Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/1cd4z1zs.aspx)

[LinqDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb907102.aspx)

[ListBox Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/z4d7ktzs.aspx)

[ListView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb907070.aspx)

[Literal Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/cc088zwa.aspx)

[Localize Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228255.aspx)

[Login Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228308.aspx)

[LoginName Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228310.aspx)

[LoginStatus Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228140.aspx)

[LoginView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228119.aspx)

[Menu Web Server Control Declarative](http://msdn.microsoft.com/en-us/library/ms228115.aspx)

[MultiView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228165.aspx)

[ObjectDataSource Web Server Control Declarative](http://msdn.microsoft.com/en-us/library/ms228150.aspx)

[Panel Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/152e73cy.aspx)

[PasswordRecovery Web Server Control Declarative](http://msdn.microsoft.com/en-us/library/ms228275.aspx)

[PlaceHolder Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/as54k8b6.aspx)

[QueryableFilterRepeater Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dd393641.aspx)

[QueryExtender Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/dd483462.aspx)

[RadioButton Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/xke2zw4x.aspx)

[RadioButtonList Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/y7k30eyz.aspx)

[Repeater Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/c012haty.aspx)

[ScriptManager Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb882554.aspx)

[ScriptManagerProxy Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb882548.aspx)

[SiteMapDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228311.aspx)

[SiteMapPath Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228263.aspx)

[SqlDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228171.aspx)

[Substitution Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228108.aspx)

[Table Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/9f65szta.aspx)

[TableCell Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/x595ddwc.aspx)

[TableRow Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/tk1zfd2e.aspx)

[TextBox Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/fhc2c904.aspx)

[Timer Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb907105.aspx)

[TreeView Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228323.aspx)

[UpdatePanel Web Server Control Overview](http://msdn.microsoft.com/en-us/library/bb882568.aspx)

[UpdateProgress Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/bb907040.aspx)

[View Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228332.aspx)

[Wizard Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228264.aspx)

[Xml Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/day7x985.aspx)

[XmlDataSource Web Server Control Declarative Syntax](http://msdn.microsoft.com/en-us/library/ms228250.aspx)

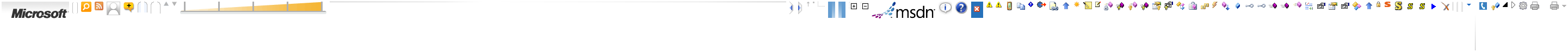
[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Related Sections**](javascript:void(0))

[System.Web.UI.Design.WebControls](http://msdn.microsoft.com/en-us/library/system.web.ui.design.webcontrols.aspx) namespace

# Base Web Server Control Properties

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The properties listed in the following table apply to all Web server controls that derive from the [WebControl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.aspx) class. Web server controls that do not inherit from the [WebControl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.aspx) class include [Literal](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.literal.aspx), [PlaceHolder](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.placeholder.aspx), [Repeater](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.repeater.aspx), and [Xml](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.xml.aspx).

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Properties**](javascript:void(0))

|  |  |
| --- | --- |
| [AccessKey](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.accesskey.aspx) | The control's keyboard shortcut key ([AccessKey](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.accesskey.aspx)). This property specifies a single letter or number that the user can press while pressing ALT. For example, specify "K" if you want the user to press ALT+K to access the control. Shortcut keys are supported only in Microsoft Internet Explorer 4.0 and later versions. |
| [Attributes](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.attributes.aspx) | The collection of additional attributes on the control not defined by a public property, but that should also be rendered. Any attribute that is not defined by the Web server control is added to this collection. This allows you to use an HTML attribute that is not directly supported by the control.  Note**Note**  This property is used only when programming; it cannot be set when declaring the control. |
| [BackColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.backcolor.aspx) | The background color of the control. The [BackColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.backcolor.aspx) property can be set using standard HTML color identifiers: the name of a color ("black" or "red") or an RGB value expressed in hexadecimal format ("#ffffff"). |
| [BorderColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.bordercolor.aspx) | The border color of the control. The [BorderColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.bordercolor.aspx) property can be set using standard HTML color identifiers: the name of a color ("black" or "red") or an RGB value expressed in hexadecimal format ("#ffffff"). |
| [BorderWidth](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.borderwidth.aspx) | The width of the control's border (if any) in pixels.  Note**Note**  This property might not work for all controls in browsers earlier than Internet Explorer 4.0. |
| [BorderStyle](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.borderstyle.aspx) | The control's border style, if any. The possible values are:   * **NotSet** * **None** * **Dotted** * **Dashed** * **Solid** * **Double** * **Groove** * **Ridge** * **Inset** * **Outset** |
| [CssClass](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.cssclass.aspx) | The cascading style sheets (CSS) class to assign to the control. |
| [Style](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.style.aspx) | A collection of text attributes that are rendered as a CSS style attribute on the outer tag of the control.  Note**Note**  Any style values set using style properties (for example, [BackColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.backcolor.aspx)) will automatically override a corresponding value in this collection. Values set using this property are not automatically reflected in the strongly typed style properties.  Some controls support style objects that allow you to apply style properties to individual elements of the control. Those properties override any settings you make using the [Style](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.style.aspx)property. |
| [Enabled](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.enabled.aspx) | Makes the control functional when this property is set to **true** (the default). Disables the control when this property is set to **false**.  Note**Note**  Disabling a control dims the control and makes it inactive. It does not hide the control. |
| [EnableTheming](http://msdn.microsoft.com/en-us/library/system.web.ui.control.enabletheming.aspx) | Enables view state persistence for the control when this property is set to **true** (the default). Disables view state persistence for this control when this property is set to **false**. |
| [EnableViewState](http://msdn.microsoft.com/en-us/library/system.web.ui.control.enableviewstate.aspx) | Enables themes for the control when this property is set to **true** (the default). Disables themes for this control when this property is set to **false**. |
| [Font](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.font.aspx) | Provides font information for the Web server control that you are declaring. This property includes subproperties that you can declare using the property-subproperty syntax in the opening tag of a Web server control element. For example, you can make a Web server control's text bold by including the **Font-Bold** attribute in its opening tag. |
| [ForeColor](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.forecolor.aspx) | The foreground color of the control.  Note**Note**  This property might not work for all controls in browsers earlier than Internet Explorer 4.0. |
| [Height](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.height.aspx) | The control's height.  Note**Note**  This property might not work for all controls in browsers earlier than Internet Explorer 4.0. |
| [SkinID](http://msdn.microsoft.com/en-us/library/system.web.ui.control.skinid.aspx) | The skin to apply to the control. |
| [TabIndex](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.tabindex.aspx) | The control's position in the tab order. If this property is not set, the control's position index is 0. Controls with the same tab index can be tabbed to according to the order in which they are declared in the Web page.  Note**Note**  This property only works in Internet Explorer 4.0 and later. |
| [ToolTip](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.tooltip.aspx) | The text that appears when the user positions the mouse pointer over a control.  Note**Note**  The [ToolTip](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.tooltip.aspx) property does not work in all browsers. Check with the browser for compatibility. |
| [Width](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.width.aspx) | The fixed width of the control. The possible units are:   * Pixel (px) * Point (pt) * Pica (pc) * Inch (in) * Mm (mm) * Cm (cm) * Percentage (%) * Em (em) * Ex (ex)   For example, to declaratively set a width of 100 expressed in points would be 100pt. For information about setting width programmatically, see [How to: Set Web Server Control Unit Properties](http://msdn.microsoft.com/en-us/library/36akbeds.aspx).  Note**Note**  The default unit is pixels. Not all browsers support every unit type. |

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

#### Reference

[System.Web.UI.WebControls](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.aspx)

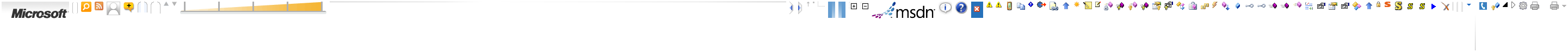
#### Other Resources

[Web Server Control Syntax](http://msdn.microsoft.com/en-us/library/zfzfkea6.aspx)

# Style Properties

**.NET Framework 4**

[Other Versions](javascript:;)



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Some controls support style properties that allow you to set the appearance, such as color and font, of individual elements within the control. To change the appearance of an element, set the properties for the appropriate style object.

<asp:control id="value" runat="server">

<StyleObject property1="value"

property2="value"/>

</asp:control>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Remarks**](javascript:void(0))

All style classes derive from the [Style](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.style.aspx) class and support the properties defined in the base class. Style classes also implement additional properties specific to the class.

When declaring a Web server control, specify the properties for a particular style object by nesting the element that represents the object (such as **<SelectedDayStyle>**) between the opening and closing tags of the control. You can then list the individual style properties (such as **BackColor="Blue"**) within the element.

For more information about these properties, see the [System.Web.UI.WebControls.Style](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.style.aspx) class and its derived classes.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**Example**](javascript:void(0))

To set the appearance of the selected day in a [Calendar](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.calendar.aspx) Web server control, set the style properties of the[SelectedDayStyle](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.calendar.selecteddaystyle.aspx) tag. The following code example demonstrates how to specify a blue background, red text, and Arial font for the selected date in the control. Notice that the [Font](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.webcontrol.font.aspx) property belongs to the [Calendar](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.calendar.aspx) control and not the [TableItemStyle](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.tableitemstyle.aspx) object.

<asp:Calendar id="Calendar1"

Font-Name="Arial"

runat="server">

<SelectedDayStyle BackColor="Blue"

ForeColor="Red"/>

</asp:Calendar>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0))**See Also**](javascript:void(0))

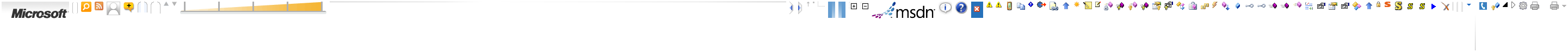
#### Reference

[Style](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.style.aspx)

#### Other Resources

# AccessDataSource Web Server Control Declarative Syntax

[Other Versions](javascript:;)



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[This documentation is for preview only, and is subject to change in later releases. Blank topics are included as placeholders.]

Represents a data source control that works with Microsoft Access databases.

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    CacheExpirationPolicy="Absolute|Sliding"

    CacheKeyDependency="string"

    CancelSelectOnNullParameter="True|False"

    ConflictDetection="OverwriteChanges|CompareAllValues"

    DataFile="uri"

    DataSourceMode="DataReader|DataSet"

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    DeleteCommandType="Text|StoredProcedure"

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    EnableTheming="True|False"

    EnableViewState="True|False"

    FilterExpression="string"

    ID="string"

    InsertCommand="string"

    InsertCommandType="Text|StoredProcedure"

    OldValuesParameterFormatString="string"

    OnDataBinding="DataBinding event handler"

    OnDeleted="Deleted event handler"

    OnDeleting="Deleting event handler"

    OnDisposed="Disposed event handler"

    OnFiltering="Filtering event handler"

    OnInit="Init event handler"

    OnInserted="Inserted event handler"

    OnInserting="Inserting event handler"

    OnLoad="Load event handler"

    OnPreRender="PreRender event handler"

    OnSelected="Selected event handler"

    OnSelecting="Selecting event handler"

    OnUnload="Unload event handler"

    OnUpdated="Updated event handler"

    OnUpdating="Updating event handler"

    runat="server"

    SelectCommand="string"

    SelectCommandType="Text|StoredProcedure"

    SkinID="string"

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                    Name="string"

                    PropertyName="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:CookieParameter

                    ConvertEmptyStringToNull="True|False"

                    CookieName="string"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    Name="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:FormParameter

                    ConvertEmptyStringToNull="True|False"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    FormField="string"

                    Name="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:Parameter

                    ConvertEmptyStringToNull="True|False"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    Name="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:ProfileParameter

                    ConvertEmptyStringToNull="True|False"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    Name="string"

                    PropertyName="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:QueryStringParameter

                    ConvertEmptyStringToNull="True|False"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    Name="string"

                    QueryStringField="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

                <asp:SessionParameter

                    ConvertEmptyStringToNull="True|False"

                    DefaultValue="string"

                    Direction="Input|Output|InputOutput|ReturnValue"

                    Name="string"

                    SessionField="string"

                    Size="integer"

                    Type="Empty|Object|DBNull|Boolean|Char|SByte|

Byte|Int16|UInt16|Int32|UInt32|Int64|UInt64|

Single|Double|Decimal|DateTime|String"

                />

        </UpdateParameters>

</asp:AccessDataSource>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **Remarks**](javascript:void(0))

The [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) class is a data source control that works with Microsoft Access databases. Like its base class,[SqlDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.aspx), the [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) control uses SQL queries to perform data retrieval.

One of the unique characteristics of the [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) control is that you do not set the [ConnectionString](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.connectionstring.aspx)property. All you need to do is set the location of the Access .mdb file, using the [DataFile](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.datafile.aspx) property, and the[AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) takes care of the underlying connection to the database. You should place Access databases in the App\_Data directory of the Web site and reference them by a relative path (for example,~/App\_Data/Northwind.mdb). This location offers additional security for data files, because they are not served if they are requested directly by the client Web browser.

The [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) class does not support connecting to Access databases that are protected by a user name or password, because you cannot set the [ConnectionString](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.connectionstring.aspx) property. If your Access database is protected by a user name or password, use the [SqlDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.aspx) control to connect to it so that you can specify a complete connection string.

You bind data-bound controls to an [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) using the **DataSourceID**property of the data-bound control. For more information on binding a data-bound control to data source controls, see [Binding to Data Using a Data Source Control](http://msdn.microsoft.com/en-us/library/ms228089.aspx).

For more information about using the [AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) control, see [AccessDataSource Web Server Control Overview](http://msdn.microsoft.com/en-us/library/b277ts6z.aspx).

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **Example**](javascript:void(0))

The following code example demonstrates a common display and update scenario with the [GridView](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx) control. The[SelectCommand](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.selectcommand.aspx) property is set to an appropriate SQL query and data from the Northwind database is displayed in the [GridView](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx) control. Because a [UpdateCommand](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.updatecommand.aspx) is also specified and the [AutoGenerateEditButton](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.autogenerateeditbutton.aspx) is set to **true**, you can edit and update the records with no additional code. The [GridView](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx) control handles adding parameters to the [UpdateParameters](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.updateparameters.aspx) collection; the [GridView](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx) passes the parameter values for the [BoundField](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.boundfield.aspx) objects first, followed by the values of fields that are specified by the [DataKeyNames](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.datakeynames.aspx) property. The [GridView](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx) calls the [Update](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.update.aspx) method automatically. If you want to order the parameters, explicitly specify an [UpdateParameters](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.sqldatasource.updateparameters.aspx) collection on the[AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx) object.

**C#**

[**VB**](javascript:%20CodeSnippet_SetLanguage('CodeSnippetContainerLang',%20'Programming',%20'Visual%20Basic');)

<%@Page Language="C#" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" >

<head runat="server">

<title>ASP.NET Example</title>

</head>

<body>

<form id="form1" runat="server">

<asp:accessdatasource

id="AccessDataSource1"

runat="server"

datasourcemode="DataSet"

datafile="~/App\_Data/Northwind.mdb"

selectcommand="SELECT EmployeeID,FirstName,LastName,Title FROM Employees"

updatecommand="Update Employees SET FirstName=?,LastName=?,Title=? WHERE EmployeeID=@EmployeeID">

</asp:accessdatasource>

<asp:gridview

id="GridView1"

runat="server"

autogeneratecolumns="False"

datakeynames="EmployeeID"

autogenerateeditbutton="True"

datasourceid="AccessDataSource1">

<columns>

<asp:boundfield headertext="First Name" datafield="FirstName" />

<asp:boundfield headertext="Last Name" datafield="LastName" />

<asp:boundfield headertext="Title" datafield="Title" />

</columns>

</asp:gridview>

</form>

</body>

</html>

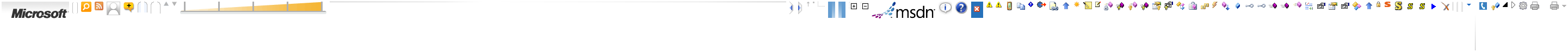
[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **See Also**](javascript:void(0))

#### Reference

[AccessDataSource](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.accessdatasource.aspx)

# AdRotator Web Server Control Declarative Syntax

[Other Versions](javascript:;)



This topic has not yet been rated [Rate this topic](http://msdn.microsoft.com/en-us/library/s5z9ks4y.aspx#feedback)

[This documentation is for preview only, and is subject to change in later releases. Blank topics are included as placeholders.]

Displays an advertisement banner on a Web Forms page.

<asp:AdRotator

    AccessKey="string"

    AdvertisementFile="uri"

    AlternateTextField="string"

    BackColor="color name|#dddddd"

    BorderColor="color name|#dddddd"

    BorderStyle="NotSet|None|Dotted|Dashed|Solid|Double|Groove|Ridge|

Inset|Outset"

    BorderWidth="size"

    CssClass="string"

    DataMember="string"

    DataSource="string"

    DataSourceID="string"

    Enabled="True|False"

    EnableTheming="True|False"

    EnableViewState="True|False"

    ForeColor="color name|#dddddd"

    Height="size"

    ID="string"

    ImageUrlField="string"

    KeywordFilter="string"

    NavigateUrlField="string"

    OnAdCreated="AdCreated event handler"

    OnDataBinding="DataBinding event handler"

    OnDataBound="DataBound event handler"

    OnDisposed="Disposed event handler"

    OnInit="Init event handler"

    OnLoad="Load event handler"

    OnPreRender="PreRender event handler"

    OnUnload="Unload event handler"

    runat="server"

    SkinID="string"

    Style="string"

    TabIndex="integer"

    Target="string|\_blank|\_parent|\_search|\_self|\_top"

    ToolTip="string"

    Visible="True|False"

    Width="size"

/>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **Remarks**](javascript:void(0))

The [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control displays an advertisement banner on a Web Forms page. It displays the image specified by the [ImageUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.imageurl.aspx) element within an anchor control. At run time, the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control uses **<asp:HyperLink>** and**<asp:Image>** controls to render the control on the Web Forms page. The source image is sized by the browser to the dimensions of the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control, regardless of its actual size.

If the [AdvertisementFile](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.advertisementfile.aspx) property is set, an advertisement is selected based on the value of the **<Impressions>**element from the file. The event arguments are then set and the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event is raised. If the [AdvertisementFile](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.advertisementfile.aspx)property is not set, the event arguments are empty when the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event is raised. The event arguments are used to render the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control, so you can modify the values passed to the event from the advertisement file, or set them with values you generate yourself. A common scenario is to populate the event arguments with values retrieved from a database.

When you create an advertisement file, consider the following points:

* The XML in the advertisement file must be well-formed.
* Only the first **<Advertisements>** element in the file is parsed by the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control. All other**<Advertisements>** elements within the file are ignored.
* You can add custom elements to the XML description of an advertisement. These values are passed to the[AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event in the [AdProperties](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.adproperties.aspx) dictionary property.

You can use the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event to select the advertisements directly in your code or to modify the rendering of an ad selected from the advertisement file. If an advertisement file is set, the arguments to the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event are already set to the selected ad when the event is called. Whether or not the values are already set, you can modify the values in the [ImageUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.imageurl.aspx), [NavigateUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.navigateurl.aspx), and [AlternateText](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.alternatetext.aspx) properties to modify the rendering of the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control. Custom elements added to the XML description of the advertisement are available in the[AdCreatedEventArgs.AdProperties](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.adproperties.aspx) dictionary property.

For detailed information on the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control's properties and events, see the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) documentation.

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **Advertisement File Format**](javascript:void(0))

The [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control uses a separate XML advertisement file to store the advertisement information, such as the location of the image to display and the URL of the page to link to. The [AdvertisementFile](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.advertisementfile.aspx) property of the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx)control specifies the path to this file.

When creating the advertisement file, opening and closing **<Advertisements>** tags mark the beginning and the end of the file, respectively. Opening and closing **<Ad>** tags delimit each advertisement. All advertisements are nested between the opening and closing **<Advertisements>** tags. If the file contains multiple **<Advertisements>** tags, only the first set of **<Advertisements>** tags in the file will be parsed by the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control. All other**<Advertisements>** tags will be ignored.

The data elements for each advertisement are nested between the opening and closing **<Ad>** tags. Although certain data elements are predefined (such as [ImageUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.imageurl.aspx) and [NavigateUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.navigateurl.aspx)), you can place custom elements between the**<Ad>** tags. These elements will be read by the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control when it parses the file. The information is then passed to the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event in the [AdProperties](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.adproperties.aspx) dictionary property.

The following table lists the data elements that are predefined for the XML advertisement file.

|  |  |
| --- | --- |
| Element | Description |
| **<ImageUrl>** | The absolute or relative URL to an image file (optional). |
| **<NavigateUrl>** | The URL of a page to link to if the user clicks the ad (optional).  Note**Note**  If this element is not set, the **HRef** property is not rendered on the anchor tag. |
| **<AlternateText>** | The text display in place of the image when the image specified by the [ImageUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.imageurl.aspx) property is not available (optional).  In some browsers, this text also appears as a **ToolTip** for the advertisement. |
| **<Keyword>** | A category for the advertisement (for example, "computers") that you can filter by (optional). |
| **<Impressions>** | A number that indicates the importance of the ad in the schedule of rotation relative to the other ads in the file (optional).  The larger the number, the more often the ad is displayed. The total of all **<Impressions>**values in the XML file cannot exceed 2,047,999,999. If it does, the [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control throws a run-time exception. |

The following shows the format for the XML advertisement file.

<Advertisements>

<Ad>

<ImageUrl>

URL of image to display for Advertisement #1

</ImageUrl>

<NavigateUrl>

URL of page to link to for Advertisement #1

</NavigateUrl>

<AlternateText>

Text to show as a ToolTip for Advertisement #1

</AlternateText>

<Keyword>

Keyword used to filter for Advertisement #1

</Keyword>

<Impressions>

Relative importance of Advertisement #1

</Impressions>

<CustomInformation>

Custom Data about Advertisement #1

</CustomInformation>

</Ad>

</Advertisements>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **Example**](javascript:void(0))

The following example demonstrates how to declare an [AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx) control in an .aspx file.

<html>

<head>

</head>

<body>

<form runat="server">

<h3>AdRotator Example</h3>

<asp:AdRotator id="AdRotator1"

Target="\_self"

AdvertisementFile="Ads.xml"

runat="server"/>

</form>

</body>

</html>

The following example demonstrates how to create an event handler for the [AdCreated](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.adcreated.aspx) event to programmatically override the value of the [NavigateUrl](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adcreatedeventargs.navigateurl.aspx) property.

**C#**

[**VB**](javascript:%20CodeSnippet_SetLanguage('CodeSnippetContainerLang',%20'Programming',%20'Visual%20Basic');)

<%@ Page Language="C#" AutoEventWireup="True" %>

<html>

<head>

<script runat="server">

void AdCreated\_Event(Object sender, AdCreatedEventArgs e)

{

e.NavigateUrl = "http://www.microsoft.com";

}

</script>

</head>

<body>

<form runat="server">

<h3>AdRotator Example</h3>

<asp:AdRotator id="AdRotator1" runat="server"

AdvertisementFile = "Ads.xml"

Target="\_newwwindow"

OnAdCreated="AdCreated\_Event"/>

</form>

</body>

</html>

The following example demonstrates how to format an XML advertisement file.

<Advertisements>

<Ad>

<ImageUrl>image1.jpg</ImageUrl>

<NavigateUrl>http://www.microsoft.com</NavigateUrl>

<AlternateText>Microsoft Main Site</AlternateText>

<Impressions>80</Impressions>

<Keyword>Topic1</Keyword>

<Caption>This is the caption for Ad#1</Caption>

</Ad>

<Ad>

<ImageUrl>image2.jpg</ImageUrl>

<NavigateUrl>http://www.wingtiptoys.com</NavigateUrl>

<AlternateText>Wing Tip Toys</AlternateText>

<Impressions>80</Impressions>

<Keyword>Topic2</Keyword>

<Caption>This is the caption for Ad#2</Caption>

</Ad>

</Advertisements>

[[http://i.msdn.microsoft.com/Hash/030c41d9079671d09a62d8e2c1db6973.gif](javascript:void(0)) **See Also**](javascript:void(0))

#### Reference

[AdRotator](http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.adrotator.aspx)

#### Other Resources

[Web Server Control Syntax](http://msdn.microsoft.com/en-us/library/zfzfkea6.aspx)

Bottom of Form