

Rich Controls

Rich controls are web controls that model complex user interface elements. Although there isn't a strict definition for rich controls, the term commonly describes web controls that provide an object model that is distinctly separate from the underlying HTML representation. A typical rich control can often be programmed as a single object (and defined with a single control tag), but renders itself with a complex sequence of HTML elements and may even use client-side JavaScript.

To understand the difference, consider the Table control and the Calendar control. When you

program with the Table control, you use objects that provide a thin wrapper over HTML table elements such as `<table>`, `<tr>`, and `<td>`. The Table control isn't considered a rich control. On the other hand, when you program with the Calendar, you work in terms of days, months, and selection ranges— concepts that have no direct correlation to the HTML markup that the Calendar renders. For that reason, the Calendar is considered a rich control.

ASP.NET includes numerous rich controls that are discussed elsewhere in this book, including data- based list controls, navigation controls, security controls, and controls tailored for web portals. The following list identifies the rich controls that don't fall into any specialized category, and are found in the Standard section of the Toolbox in Visual Studio:

AdRotator: This control is a banner ad that displays one out of a set of images based on a predefined schedule that's saved in an XML file.

Calendar: This control is a calendar that displays and allows you to move through months and days and to select a date or a range of days.

MultiView, View, and Wizard: You can think of these controls as more advanced panels that let you switch between groups of controls on a page. The Wizard control even includes built-in navigation logic. You'll learn about these controls in Chapter 17.

Substitution: This control is really a placeholder that allows you to customize ASP.NET's output caching feature, which you'll tackle in Chapter 11.

Xml: This control takes an XML file and an XSLT stylesheet file as input and displays the resulting HTML in a browser. You'll learn about the Xml control in Chapter 14.

The rich controls in this list all appear in the Standard tab of the Visual Studio Toolbox.