

Server Controls

Introduction

- The ASP.NET server controls are classes that usually describe visual elements on a web form.
- Some of these classes can be mapped directly with specific HTML tags. Others represent more complex representations.

Server Controls Categories

- The available server controls are grouped into the following categories:

| | |
|------------|-----------------|
| Standard | Web Parts |
| Data | Ajax Extensions |
| Validation | Dynamic Data |
| Navigation | Reporting |
| Login | HTML |
| General | Web |

HTML Server Controls

- These are classes that wrap standard HTML elements. We can turn any standard HTML element into an HTML server control. We just need to add `runat="server"` to the starting tag.
- If there isn't any corresponding class, ASP.NET will simply use the `HtmlGenericControl` class.

Web Controls

- These classes duplicate the functionality of the basic HTML element and extend it with a more consistent and meaningful set of properties and methods.

Rich Controls

- These controls generate a large amount of HTML markup in most cases bundled with client side Java Script code.
- Samples for some of the well known rich controls include the Calendar and the AdRotator.

Validation Controls

- This set of controls allows us to validate associated input controls.
- The validation takes place using Java Script running within the client web browser.

Data Controls

- These controls usually include sophisticated grids and lists designed to display large amounts of data, usually fetched from a database.
- When using a control of this type we can easily bind it with a data source.

Navigation Controls

- These controls were developed to allow us an easy way for presenting site maps that allow the user to navigate from one page to another.

Login Controls

- These controls provide us with a simple way for authenticating users. These controls can be easily configured to work with a database.

Web Parts Controls

- This set of controls allow us to develop WebParts, an ASP.NET model for building componentized web portals.

Ajax Controls

- This set of controls allow us to implement Ajax without writing the JavaScript code running on the client side.

Dynamic Data Controls

- This set of controls allow us to develop data driven web site in a relatively simple way.