HttpResponse Class

<http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx>

**.NET Framework 4**

[Other Versions](javascript:;)

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Encapsulates HTTP-response information from an ASP.NET operation.

[Inheritance Hierarchy](javascript:void(0))

[System.Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx)  
  System.Web.HttpResponse

**Namespace:**  [System.Web](http://msdn.microsoft.com/en-us/library/system.web(v=vs.100).aspx)  
**Assembly:**  System.Web (in System.Web.dll)

[Syntax](javascript:void(0))

C#

[**C++**](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx?cs-save-lang=1&cs-lang=cpp#code-snippet-1)

[**F#**](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx?cs-save-lang=1&cs-lang=fsharp#code-snippet-1)

[**VB**](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx?cs-save-lang=1&cs-lang=vb#code-snippet-1)

public sealed class HttpResponse

The HttpResponse type exposes the following members.

[Constructors](javascript:void(0))

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Description** |
| Public method | [HttpResponse](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.httpresponse(v=vs.100).aspx) | Infrastructure. Initializes a new instance of the HttpResponse class. |

[Top](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx#mainBody)

[Properties](javascript:void(0))

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Description** |
| Public property | [Buffer](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.buffer(v=vs.100).aspx) | Gets or sets a value indicating whether to buffer output and send it after the complete response is finished processing. |
| Public property | [BufferOutput](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.bufferoutput(v=vs.100).aspx) | Gets or sets a value indicating whether to buffer output and send it after the complete page is finished processing. |
| Public property | [Cache](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.cache(v=vs.100).aspx) | Gets the caching policy (such as expiration time, privacy settings, and vary clauses) of a Web page. |
| Public property | [CacheControl](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.cachecontrol(v=vs.100).aspx) | Gets or sets the **Cache-Control** HTTP header that matches one of the [HttpCacheability](http://msdn.microsoft.com/en-us/library/system.web.httpcacheability(v=vs.100).aspx)enumeration values. |
| Public property | [Charset](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.charset(v=vs.100).aspx) | Gets or sets the HTTP character set of the output stream. |
| Public property | [ContentEncoding](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.contentencoding(v=vs.100).aspx) | Gets or sets the HTTP character set of the output stream. |
| Public property | [ContentType](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.contenttype(v=vs.100).aspx) | Gets or sets the HTTP MIME type of the output stream. |
| Public property | [Cookies](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.cookies(v=vs.100).aspx) | Gets the response cookie collection. |
| Public property | [Expires](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.expires(v=vs.100).aspx) | Gets or sets the number of minutes before a page cached on a browser expires. If the user returns to the same page before it expires, the cached version is displayed. [Expires](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.expires(v=vs.100).aspx) is provided for compatibility with earlier versions of ASP. |
| Public property | [ExpiresAbsolute](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.expiresabsolute(v=vs.100).aspx) | Gets or sets the absolute date and time at which to remove cached information from the cache.[ExpiresAbsolute](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.expiresabsolute(v=vs.100).aspx) is provided for compatibility with earlier versions of ASP. |
| Public property | [Filter](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.filter(v=vs.100).aspx) | Gets or sets a wrapping filter object that is used to modify the HTTP entity body before transmission. |
| Public property | [HeaderEncoding](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.headerencoding(v=vs.100).aspx) | Gets or sets an [Encoding](http://msdn.microsoft.com/en-us/library/system.text.encoding(v=vs.100).aspx) object that represents the encoding for the current header output stream. |
| Public property | [Headers](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.headers(v=vs.100).aspx) | Gets the collection of response headers. |
| Public property | [IsClientConnected](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.isclientconnected(v=vs.100).aspx) | Gets a value indicating whether the client is still connected to the server. |
| Public property | [IsRequestBeingRedirected](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.isrequestbeingredirected(v=vs.100).aspx) | Gets a Boolean value indicating whether the client is being transferred to a new location. |
| Public property | [Output](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.output(v=vs.100).aspx) | Enables output of text to the outgoing HTTP response stream. |
| Public property | [OutputStream](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.outputstream(v=vs.100).aspx) | Enables binary output to the outgoing HTTP content body. |
| Public property | [RedirectLocation](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.redirectlocation(v=vs.100).aspx) | Gets or sets the value of the Http **Location** header. |
| Public property | [Status](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.status(v=vs.100).aspx) | Sets the **Status** line that is returned to the client. |
| Public property | [StatusCode](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.statuscode(v=vs.100).aspx) | Gets or sets the HTTP status code of the output returned to the client. |
| Public property | [StatusDescription](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.statusdescription(v=vs.100).aspx) | Gets or sets the HTTP status string of the output returned to the client. |
| Public property | [SubStatusCode](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.substatuscode(v=vs.100).aspx) | Gets or sets a value qualifying the status code of the response. |
| Public property | [SuppressContent](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.suppresscontent(v=vs.100).aspx) | Gets or sets a value indicating whether to send HTTP content to the client. |
| Public property | [TrySkipIisCustomErrors](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.tryskipiiscustomerrors(v=vs.100).aspx) | Gets or sets a value that specifies whether IIS 7.0 custom errors are disabled. |

[Top](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx#mainBody)

[Methods](javascript:void(0))

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Description** |
| Public method | [AddCacheDependency](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.addcachedependency(v=vs.100).aspx) | Associates a set of cache dependencies with the response to facilitate invalidation of the response if it is stored in the output cache and the specified dependencies change. |
| Public method | [AddCacheItemDependencies(ArrayList)](http://msdn.microsoft.com/en-us/library/w0t97azx(v=vs.100).aspx) | Makes the validity of a cached response dependent on other items in the cache. |
| Public method | [AddCacheItemDependencies(String[])](http://msdn.microsoft.com/en-us/library/h3ee2kh2(v=vs.100).aspx) | Makes the validity of a cached item dependent on another item in the cache. |
| Public method | [AddCacheItemDependency](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.addcacheitemdependency(v=vs.100).aspx) | Makes the validity of a cached response dependent on another item in the cache. |
| Public method | [AddFileDependencies(ArrayList)](http://msdn.microsoft.com/en-us/library/a1c1ttzz(v=vs.100).aspx) | Adds a group of file names to the collection of file names on which the current response is dependent. |
| Public method | [AddFileDependencies(String[])](http://msdn.microsoft.com/en-us/library/02kbsyf8(v=vs.100).aspx) | Adds an array of file names to the collection of file names on which the current response is dependent. |
| Public method | [AddFileDependency](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.addfiledependency(v=vs.100).aspx) | Adds a single file name to the collection of file names on which the current response is dependent. |
| Public method | [AddHeader](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.addheader(v=vs.100).aspx) | Adds an HTTP header to the output stream. [AddHeader](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.addheader(v=vs.100).aspx) is provided for compatibility with earlier versions of ASP. |
| Public method | [AppendCookie](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.appendcookie(v=vs.100).aspx) | Infrastructure. Adds an HTTP cookie to the intrinsic cookie collection. |
| Public method | [AppendHeader](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.appendheader(v=vs.100).aspx) | Adds an HTTP header to the output stream. |
| Public method | [AppendToLog](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.appendtolog(v=vs.100).aspx) | Adds custom log information to the Internet Information Services (IIS) log file. |
| Public method | [ApplyAppPathModifier](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.applyapppathmodifier(v=vs.100).aspx) | Adds a session ID to the virtual path if the session is using [Cookieless](http://msdn.microsoft.com/en-us/library/system.web.configuration.sessionstatesection.cookieless(v=vs.100).aspx)session state and returns the combined path. If [Cookieless](http://msdn.microsoft.com/en-us/library/system.web.configuration.sessionstatesection.cookieless(v=vs.100).aspx) session state is not used, [ApplyAppPathModifier](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.applyapppathmodifier(v=vs.100).aspx) returns the original virtual path. |
| Public method | [BinaryWrite](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.binarywrite(v=vs.100).aspx) | Writes a string of binary characters to the HTTP output stream. |
| Public method | [Clear](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clear(v=vs.100).aspx) | Clears all content output from the buffer stream. |
| Public method | [ClearContent](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clearcontent(v=vs.100).aspx) | Clears all content output from the buffer stream. |
| Public method | [ClearHeaders](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clearheaders(v=vs.100).aspx) | Clears all headers from the buffer stream. |
| Public method | [Close](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.close(v=vs.100).aspx) | Closes the socket connection to a client. |
| Public method | [DisableKernelCache](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.disablekernelcache(v=vs.100).aspx) | Disables kernel caching for the current response. |
| Public method | [End](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.end(v=vs.100).aspx) | Sends all currently buffered output to the client, stops execution of the page, and raises the [EndRequest](http://msdn.microsoft.com/en-us/library/system.web.httpapplication.endrequest(v=vs.100).aspx) event. |
| Public method | [Equals(Object)](http://msdn.microsoft.com/en-us/library/bsc2ak47(v=vs.100).aspx) | Determines whether the specified [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx) is equal to the current [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).(Inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Protected method | [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize(v=vs.100).aspx) | Allows an object to try to free resources and perform other cleanup operations before it is reclaimed by garbage collection. (Inherited from[Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Public method | [Flush](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.flush(v=vs.100).aspx) | Sends all currently buffered output to the client. |
| Public method | [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode(v=vs.100).aspx) | Serves as a hash function for a particular type. (Inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Public method | [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype(v=vs.100).aspx) | Gets the [Type](http://msdn.microsoft.com/en-us/library/system.type(v=vs.100).aspx) of the current instance. (Inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Protected method | [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone(v=vs.100).aspx) | Creates a shallow copy of the current [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx). (Inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Public method | [Pics](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.pics(v=vs.100).aspx) | Appends a HTTP **PICS-Label** header to the output stream. |
| Public method | [Redirect(String)](http://msdn.microsoft.com/en-us/library/t9dwyts4(v=vs.100).aspx) | Redirects a request to a new URL and specifies the new URL. |
| Public method | [Redirect(String, Boolean)](http://msdn.microsoft.com/en-us/library/a8wa7sdt(v=vs.100).aspx) | Redirects a client to a new URL. Specifies the new URL and whether execution of the current page should terminate. |
| Public method | [RedirectPermanent(String)](http://msdn.microsoft.com/en-us/library/dd384856(v=vs.100).aspx) | Performs a permanent redirection from the requested URL to the specified URL. |
| Public method | [RedirectPermanent(String, Boolean)](http://msdn.microsoft.com/en-us/library/dd322042(v=vs.100).aspx) | Performs a permanent redirection from the requested URL to the specified URL, and provides the option to complete the response. |
| Public method | [RedirectToRoute(Object)](http://msdn.microsoft.com/en-us/library/dd992864(v=vs.100).aspx) | Redirects a request to a new URL by using route parameter values. |
| Public method | [RedirectToRoute(RouteValueDictionary)](http://msdn.microsoft.com/en-us/library/dd992882(v=vs.100).aspx) | Redirects a request to a new URL by using route parameter values. |
| Public method | [RedirectToRoute(String)](http://msdn.microsoft.com/en-us/library/dd783087(v=vs.100).aspx) | Redirects a request to a new URL by using a route name. |
| Public method | [RedirectToRoute(String, Object)](http://msdn.microsoft.com/en-us/library/dd992853(v=vs.100).aspx) | Redirects a request to a new URL by using route parameter values and a route name. |
| Public method | [RedirectToRoute(String, RouteValueDictionary)](http://msdn.microsoft.com/en-us/library/dd992947(v=vs.100).aspx) | Redirects a request to a new URL by using route parameter values and a route name. |
| Public method | [RedirectToRoutePermanent(Object)](http://msdn.microsoft.com/en-us/library/dd992856(v=vs.100).aspx) | Performs a permanent redirection from a requested URL to a new URL by using route parameter values. |
| Public method | [RedirectToRoutePermanent(RouteValueDictionary)](http://msdn.microsoft.com/en-us/library/dd992972(v=vs.100).aspx) | Performs a permanent redirection from a requested URL to a new URL by using route parameter values. |
| Public method | [RedirectToRoutePermanent(String)](http://msdn.microsoft.com/en-us/library/dd784605(v=vs.100).aspx) | Performs a permanent redirection from a requested URL to a new URL by using a route name. |
| Public method | [RedirectToRoutePermanent(String, Object)](http://msdn.microsoft.com/en-us/library/dd784429(v=vs.100).aspx) | Performs a permanent redirection from a requested URL to a new URL by using the route parameter values and the name of the route that correspond to the new URL. |
| Public method | [RedirectToRoutePermanent(String, RouteValueDictionary)](http://msdn.microsoft.com/en-us/library/dd784213(v=vs.100).aspx) | Performs a permanent redirection from a requested URL to a new URL by using route parameter values and a route name. |
| Public methodStatic member | [RemoveOutputCacheItem(String)](http://msdn.microsoft.com/en-us/library/914c7ktw(v=vs.100).aspx) | Removes from the cache all cached items that are associated with the default output-cache provider. This method is static. |
| Public methodStatic member | [RemoveOutputCacheItem(String, String)](http://msdn.microsoft.com/en-us/library/dd322010(v=vs.100).aspx) | Uses the specified output-cache provider to remove all output-cache items that are associated with the specified path. |
| Public method | [SetCookie](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.setcookie(v=vs.100).aspx) | Infrastructure. Updates an existing cookie in the cookie collection. |
| Public method | [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring(v=vs.100).aspx) | Returns a string that represents the current object. (Inherited from[Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx).) |
| Public method | [TransmitFile(String)](http://msdn.microsoft.com/en-us/library/12s31dhy(v=vs.100).aspx) | Writes the specified file directly to an HTTP response output stream, without buffering it in memory. |
| Public method | [TransmitFile(String, Int64, Int64)](http://msdn.microsoft.com/en-us/library/bb155611(v=vs.100).aspx) | Writes the specified part of a file directly to an HTTP response output stream without buffering it in memory. |
| Public method | [Write(Char)](http://msdn.microsoft.com/en-us/library/fbwchy35(v=vs.100).aspx) | Writes a character to an HTTP response output stream. |
| Public method | [Write(Object)](http://msdn.microsoft.com/en-us/library/021tb8dz(v=vs.100).aspx) | Writes an [Object](http://msdn.microsoft.com/en-us/library/system.object(v=vs.100).aspx) to an HTTP response stream. |
| Public method | [Write(String)](http://msdn.microsoft.com/en-us/library/1463ysyw(v=vs.100).aspx) | Writes a string to an HTTP response output stream. |
| Public method | [Write(Char[], Int32, Int32)](http://msdn.microsoft.com/en-us/library/h8023hsz(v=vs.100).aspx) | Writes an array of characters to an HTTP response output stream. |
| Public method | [WriteFile(String)](http://msdn.microsoft.com/en-us/library/dyfzssz9(v=vs.100).aspx) | Writes the contents of the specified file directly to an HTTP response output stream as a file block. |
| Public method | [WriteFile(String, Boolean)](http://msdn.microsoft.com/en-us/library/8k0d9b3e(v=vs.100).aspx) | Writes the contents of the specified file directly to an HTTP response output stream as a memory block. |
| Public method | [WriteFile(IntPtr, Int64, Int64)](http://msdn.microsoft.com/en-us/library/ms150018(v=vs.100).aspx) | Writes the specified file directly to an HTTP response output stream. |
| Public method | [WriteFile(String, Int64, Int64)](http://msdn.microsoft.com/en-us/library/dc1t4kzs(v=vs.100).aspx) | Writes the specified file directly to an HTTP response output stream. |
| Public method | [WriteSubstitution](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.writesubstitution(v=vs.100).aspx) | Allows insertion of response substitution blocks into the response, which allows dynamic generation of specified response regions for output cached responses. |

[Top](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx#mainBody)

[Remarks](javascript:void(0))

The methods and properties of the HttpResponse class are exposed through the [Response](http://msdn.microsoft.com/en-us/library/system.web.httpapplication.response(v=vs.100).aspx) property of the [HttpApplication](http://msdn.microsoft.com/en-us/library/system.web.httpapplication(v=vs.100).aspx), [HttpContext](http://msdn.microsoft.com/en-us/library/system.web.httpcontext(v=vs.100).aspx), [Page](http://msdn.microsoft.com/en-us/library/system.web.ui.page(v=vs.100).aspx), and [UserControl](http://msdn.microsoft.com/en-us/library/system.web.ui.usercontrol(v=vs.100).aspx) classes.

The following methods of the HttpResponse class are supported only in postback scenarios and not in asynchronous postback scenarios:

* [BinaryWrite](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.binarywrite(v=vs.100).aspx)
* [Clear](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clear(v=vs.100).aspx)
* [ClearContent](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clearcontent(v=vs.100).aspx)
* [ClearHeaders](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clearheaders(v=vs.100).aspx)
* [Close](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.close(v=vs.100).aspx)
* [End](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.end(v=vs.100).aspx)
* [Flush](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.flush(v=vs.100).aspx)
* [TransmitFile](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.transmitfile(v=vs.100).aspx)
* [Write](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.write(v=vs.100).aspx)
* [WriteFile](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.writefile(v=vs.100).aspx)
* [WriteSubstitution](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.writesubstitution(v=vs.100).aspx)

Partial-page updates are enabled when you use [UpdatePanel](http://msdn.microsoft.com/en-us/library/system.web.ui.updatepanel(v=vs.100).aspx) controls to update selected regions of a page instead of updating the whole page with a postback. For more information, see [UpdatePanel Control Overview](http://msdn.microsoft.com/en-us/library/bb386454(v=vs.100).aspx) and [Partial-Page Rendering Overview](http://msdn.microsoft.com/en-us/library/bb386573(v=vs.100).aspx).

| **Topic** | **Location** |
| --- | --- |
| [How to: Pass Values Between ASP.NET Web Pages](http://msdn.microsoft.com/en-us/library/6c3yckfw(v=vs.85).aspx) | Building ASP .NET Web Applications |
| [How to: Pass Values Between ASP.NET Web Pages](http://msdn.microsoft.com/en-us/library/6c3yckfw(v=vs.80).aspx) | Building ASP .NET Web Applications |

[Examples](javascript:void(0))

The following example draws three overlapping rectangles when the page is requested. The code begins by setting the [ContentType](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.contenttype(v=vs.100).aspx) property to image/jpeg, so that the entire page will be rendered as a JPEG image. The code then calls the [Clear](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clear(v=vs.100).aspx) method to ensure that no extraneous content is sent with this response. Next, the code sets the [BufferOutput](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.bufferoutput(v=vs.100).aspx) property to true so that the page is completely processed before it is sent to the requesting client. Two objects used to draw the rectangles are then created: a [Bitmap](http://msdn.microsoft.com/en-us/library/system.drawing.bitmap(v=vs.100).aspx) and a [Graphics](http://msdn.microsoft.com/en-us/library/system.drawing.graphics(v=vs.100).aspx) object. The variables created in the page are used as coordinates to draw the rectangles and a string that appears inside the largest rectangle.

When the three rectangles and the string that appears inside them are drawn, the [Bitmap](http://msdn.microsoft.com/en-us/library/system.drawing.bitmap(v=vs.100).aspx) is saved to the [Stream](http://msdn.microsoft.com/en-us/library/system.io.stream(v=vs.100).aspx) object that is associated with the[OutputStream](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.outputstream(v=vs.100).aspx) property and its format is set to JPEG. The code calls the [Dispose](http://msdn.microsoft.com/en-us/library/system.drawing.image.dispose(v=vs.100).aspx) and [Dispose](http://msdn.microsoft.com/en-us/library/system.drawing.graphics.dispose(v=vs.100).aspx) methods to release the resources used by the two drawing objects. Lastly, the code calls the [Flush](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.flush(v=vs.100).aspx) method to send the buffered response to the requesting client.

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| **NoteNote** |
| In code, the HttpResponse object is referred to by the keyword **Response**. For example, Response.Clear() refers to the [HttpResponse.Clear](http://msdn.microsoft.com/en-us/library/system.web.httpresponse.clear(v=vs.100).aspx)method. The [Page](http://msdn.microsoft.com/en-us/library/system.web.ui.page(v=vs.100).aspx) class has a property that is named [Response](http://msdn.microsoft.com/en-us/library/system.web.ui.page.response(v=vs.100).aspx) that exposes the current instance of HttpResponse. |

C#

[**VB**](http://msdn.microsoft.com/en-us/library/system.web.httpresponse(v=vs.100).aspx?cs-save-lang=1&cs-lang=vb#code-snippet-2)

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

<%@ import Namespace="System.Drawing" %>

<%@ import Namespace="System.Drawing.Imaging" %>

<%@ import Namespace="System.Drawing.Drawing2D" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"

"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<script runat="server">

private void Page\_Load(object sender, EventArgs e)

{

// Set the page's content type to JPEG files

// and clears all content output from the buffer stream.

Response.ContentType = "image/jpeg";

Response.Clear();

// Buffer response so that page is sent

// after processing is complete.

Response.BufferOutput = true;

// Create a font style.

Font rectangleFont = new Font(

"Arial", 10, FontStyle.Bold);

// Create integer variables.

int height = 100;

int width = 200;

// Create a random number generator and create

// variable values based on it.

Random r = new Random();

int x = r.Next(75);

int a = r.Next(155);

int x1 = r.Next(100);

// Create a bitmap and use it to create a

// Graphics object.

Bitmap bmp = new Bitmap(

width, height, PixelFormat.Format24bppRgb);

Graphics g = Graphics.FromImage(bmp);

g.SmoothingMode = SmoothingMode.AntiAlias;

g.Clear(Color.LightGray);

// Use the Graphics object to draw three rectangles.

g.DrawRectangle(Pens.White, 1, 1, width-3, height-3);

g.DrawRectangle(Pens.Aquamarine, 2, 2, width-3, height-3);

g.DrawRectangle(Pens.Black, 0, 0, width, height);

// Use the Graphics object to write a string

// on the rectangles.

g.DrawString(

"ASP.NET Samples", rectangleFont,

SystemBrushes.WindowText, new PointF(10, 40));

// Apply color to two of the rectangles.

g.FillRectangle(

new SolidBrush(

Color.FromArgb(a, 255, 128, 255)),

x, 20, 100, 50);

g.FillRectangle(

new LinearGradientBrush(

new Point(x, 10),

new Point(x1 + 75, 50 + 30),

Color.FromArgb(128, 0, 0, 128),

Color.FromArgb(255, 255, 255, 240)),

x1, 50, 75, 30);

// Save the bitmap to the response stream and

// convert it to JPEG format.

bmp.Save(Response.OutputStream, ImageFormat.Jpeg);

// Release memory used by the Graphics object

// and the bitmap.

g.Dispose();

bmp.Dispose();

// Send the output to the client.

Response.Flush();

}

</script>

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

<head>

<title>ASP.NET Example</title>

</head>

<body>

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

</form>

</body>

</html>

[Version Information](javascript:void(0))

.NET Framework

Supported in: 4, 3.5, 3.0, 2.0, 1.1, 1.0

[Platforms](javascript:void(0))

Windows 7, Windows Vista SP1 or later, Windows XP SP3, Windows XP SP2 x64 Edition, Windows Server 2008 (Server Core not supported), Windows Server 2008 R2 (Server Core supported with SP1 or later), Windows Server 2003 SP2

The .NET Framework does not support all versions of every platform. For a list of the supported versions, see [.NET Framework System Requirements](http://msdn.microsoft.com/en-us/library/8z6watww(v=vs.100).aspx).

[Thread Safety](javascript:void(0))

Any public **static** (**Shared** in Visual Basic) members of this type are thread safe. Any instance members are not guaranteed to be thread safe.