**Session-State Events**

This page is specific to

**Microsoft Visual Studio 2008/.NET Framework 3.5**

Other versions are also available for the following:

[Microsoft Visual Studio 2005/.NET Framework 2.0](http://msdn.microsoft.com/en-us/library/ms178583(VS.80).aspx)

[.NET Framework 3.0](http://msdn.microsoft.com/en-us/library/ms178583(VS.85).aspx)

[Microsoft Visual Studio 2010/.NET Framework 4](http://msdn.microsoft.com/en-us/library/ms178583(VS.100).aspx)

ASP.NET provides two events that help you manage user sessions: the **Session\_OnStart** event, which is raised when a new session begins, and the **Session\_OnEnd** event, which is raised when a session is abandoned or expires.

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| **NoteNote:** |
| If the Global.asax file or Web.config file for an ASP.NET application is modified, the application will be restarted. If the current session-state mode is [InProc](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.inproc.aspx), any values stored in application state or session state will be lost. Be aware that some anti-virus software can update the last-modified date and time of the Global.asax or Web.config file for an application. For information on setting the session state mode, see [Session-State Modes](http://msdn.microsoft.com/en-us/library/ms178586.aspx). |

http://i.msdn.microsoft.com/Global/Images/clear.gif The Session\_OnStart Event

You can handle the **Session\_OnStart** event by adding a subroutine named **Session\_OnStart** to the Global.asax file. The **Session\_OnStart** subroutine is run at the beginning of a request if the request begins a new session. A new session will be started if a request is made that does not contain a [SessionID](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.sessionid.aspx) value or if the [SessionID](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.sessionid.aspx) property contained in the request references a session that has expired.

You can use the **Session\_OnStart** event to initialize session variables as well as to track session-related information.

http://i.msdn.microsoft.com/Global/Images/clear.gif The Session\_OnEnd Event

You can handle the **Session\_OnEnd** event by adding a subroutine named **Session\_OnEnd** to the Global.asax file. The **Session\_OnEnd** subroutine is run when the [Abandon](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.abandon.aspx) method has been called or when the session has expired. A session expires when the number of minutes specified by the [Timeout](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.timeout.aspx) property passes without a request being made for the session.

The **Session\_OnEnd** event is supported only when the session state [Mode](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.mode.aspx) property is set to [InProc](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.inproc.aspx), which is the default. If the session state [Mode](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.mode.aspx) is [StateServer](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.stateserver.aspx) or [SQLServer](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.sqlserver.aspx), then the **Session\_OnEnd** event in the Global.asax file is ignored. If the session state [Mode](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.mode.aspx) is set to [Custom](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.custom.aspx), then support for the **Session\_OnEnd** event is determined by the custom session-state store provider.

You can use the **Session\_OnEnd** event to clean up session-related information such as information for a user that is tracked in a data source by the [SessionID](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.sessionid.aspx) value.

http://i.msdn.microsoft.com/Global/Images/clear.gif Session Events Example

The following code example shows a sample of the **Session\_OnStart** and **Session\_OnEnd** subroutines you can add to the Global.asax file. The subroutines defined in this example create a counter that keeps track of the number of application users actively using the application. Note that this example will function properly only when the session state [Mode](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.httpsessionstate.mode.aspx) property is set to [InProc](http://msdn.microsoft.com/en-us/library/system.web.sessionstate.sessionstatemode.inproc.aspx), as the **Session\_OnEnd** event is only supported for in-process session-state storage.

Visual Basic

[Copy Code](javascript:CopyCode('ctl00_MTCS_main_ctl30_ctl00_ctl02_code');" \o "Copy Code)

<script language="VB" runat="server">

Public Sub Application\_OnStart()

Application("UsersOnline") = 0

End Sub

Public Sub Session\_OnStart()

Application.Lock()

Application("UsersOnline") = CInt(Application("UsersOnline")) + 1

Application.UnLock()

End Sub

Public Sub Session\_OnEnd()

Application.Lock()

Application("UsersOnline") = CInt(Application("UsersOnline")) - 1

Application.UnLock()

End Sub

</script>

C#

[Copy Code](javascript:CopyCode('ctl00_MTCS_main_ctl30_ctl00_ctl03_code');" \o "Copy Code)

<script language="C#" runat="server">

public void Application\_OnStart()

{

Application["UsersOnline"] = 0;

}

public void Session\_OnStart()

{

Application.Lock();

Application["UsersOnline"] = (int)Application["UsersOnline"] + 1;

Application.UnLock();

}

public void Session\_OnEnd()

{

Application.Lock();

Application["UsersOnline"] = (int)Application["UsersOnline"] - 1;

Application.UnLock();

}

</script>