**Changing Computer State**

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To reset a computer in PowerShell, use either a standard command-line tool, WMI, or a CIM class. Although you are using PowerShell only to run the tool, learning how to change a computer's power state in PowerShell illustrates some of the important details about working with external tools in PowerShell.

**Locking a Computer**

The only way to lock a computer directly with the standard available tools is to call the **LockWorkstation()** function in **user32.dll**:

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rundll32.exe user32.dll,LockWorkStation

This command immediately locks the workstation. It uses **rundll32.exe**, which runs Windows DLLs (and saves their libraries for repeated use) to run user32.dll, a library of Windows management functions.

When you lock a workstation while Fast User Switching is enabled, such as on Windows XP, the computer displays the user logon screen rather than starting the current user's screensaver.

To shut down particular sessions on a Terminal Server, use the **tsshutdn.exe** command-line tool.

**Logging Off the Current Session**

You can use several different techniques to log off of a session on the local system. The simplest way is to use the Remote Desktop/Terminal Services command-line tool, **logoff.exe** (For details, at the PowerShell prompt, type logoff /?). To log off the current active session, type logoff with no arguments.

You can also use the **shutdown.exe** tool with its logoff option:

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shutdown.exe -l

Another option is to use WMI. The **Win32\_OperatingSystem** class has a **Shutdown** method. Invoking the method with the 0 flag initiates logoff:

For more information about the **Shutdown** method, see [Shutdown method of the Win32\_OperatingSystem class](https://docs.microsoft.com/en-us/windows/win32/cimwin32prov/shutdown-method-in-class-win32-operatingsystem)

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Get-CimInstance -ClassName Win32\_OperatingSystem | Invoke-CimMethod -MethodName Shutdown

**Shutting Down or Restarting a Computer**

Shutting down and restarting computers are generally the same types of task. Tools that shut down a computer will generally restart it as well—and vice versa. There are two straightforward options for restarting a computer from PowerShell. Use either tsshutdn.exe or shutdown.exe with appropriate arguments. You can get detailed usage information from tsshutdn.exe /? or shutdown.exe /?.

You can also perform shutdown and restart operations directly from PowerShell as well.

To shut down the computer, use the Stop-Computer command

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Stop-Computer

To restart the operating system, use the Restart-Computer command

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Restart-Computer

To force an immediate restart of the computer, use the -Force parameter.

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Restart-Computer -Force