

Re: SetConsoleCtrlHandler

Source:

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.kernel/2006-08/msg00896.ht>

- *From:* Steve Lawrence <sl516720@xxxxxxx>
 - *Date:* Fri, 25 Aug 2006 03:38:01 -0700
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Dear Gary / Ken,

First of all the system isn't shutting down, just the application. The application isn't a service and is not associated with a console. It is started up by some middleware called Top End. This is transaction control software bought by BEA from NCR and merged with Tivoli. Tivoli lives on because it is more well known and Top End was killed by BEA. Thus no support and no W2K version.

The customer has tried to keep the W2K box the same as the NT 4 machine apart from the OS itself and applications which have a release update for W2K which don't run on NT. The application I'm having problems with is started by Top End and does a SetConsoleCtrlHandler as almost it's first command. It then sets up some additional event and sits waiting for something to happen. I put some debug in to print to a file everything an event was caught by the module. On NT the module never catches the console logoff, but on W2K it catches it straight away (when the console is logged off) and commences shutting down the application. As far as you know isn't there any difference in this area between NT 4 and W2K? I'm wondering if it is worthwhile opening a paid query with Microsoft or if it would just be a waste of time.

What I probably will do is just receive the event and ignore it if all else fails.

Thanks for taking the time with this query.

—
Steve Lawrence
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"Skywing [MVP]" wrote:

This is the expected behavior for services as far as I know. I don't know of any OS setting to disable that event.

Re: SetConsoleCtrlHandler

"CTRL_LOGOFF_EVENT (5) A signal that the system sends to all console processes when a user is logging off. This signal does not indicate which user is logging off, so no assumptions can be made.

Note that this signal is received only by services. Interactive applications are terminated at logoff, so they are not present when the system sends this signal.

[...]

When a console application is run as a service, it receives a modified default console control handler. This modified handler does not call `ExitProcess` when processing the `CTRL_LOGOFF_EVENT` and `CTRL_SHUTDOWN_EVENT` signals. This allows the service to continue running after the user logs off. If the service installs its own console control handler, this handler is called before the default handler. If the installed handler calls `ExitProcess` when processing the `CTRL_LOGOFF_EVENT` signal, the service exits when the user logs off.

Note that a third-party library or DLL can install a console control handler for your application. If it does, this handler overrides the default handler, and can cause the application to exit when the user logs off."

Is it possible that you had something else loaded in your process on NT4 that was eating the `CTRL_LOGOFF_EVENT`, and that something is no longer being used on Win2k?

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Ken Johnson (Skywing)
Windows SDK MVP

"Steve Lawrence" <sl516720@xxxxxxx> wrote in message
news:99023D0F-0BFA-4DFA-A71F-CCD11F4F7B9E@xxxxxxxxxxxxxxxxxxxx

Dear Microsoft Support,

I have posted this problem to the W2K migration newsgroup and they recommended I post it here instead. I hope this is the correct place. It is concerning a difference in results when using the above API.

My company has a customer who is attempting to run a package we released on NT 4 Server years ago now on a W2K Server. We stopped supporting the package some time ago, but told them we would make our best efforts to help them with

Re: SetConsoleCtrlHandler

no promises. The reason for this OS move is the fact that their hardware supplier can no longer provide NT 4 compliant hardware.

The customer carried out testing successfully on W2K and installed it in a live site. On the first day the application started shutting itself down. Eventually it was traced down to the fact that it was shutting down when the console logged off. The customer stopped users from logging off on the console and asked me what the problem was.

I obtained the source from our home office in the US (I'm in the UK.) for examination. When the application starts up to uses the API SetConsoleCtrlHandler and when this event is received, it shuts down. On NT 4 Server this event is never triggered and the program is not effected. On W2K the event is triggered and the program initiates a shutdown.

What is the difference between W2K in NT in this area. Our ideal solution would be to change a setting in the OS. This is because I'm not sure I have all the proper libraries, etc. to trust a recompile and ignore this event. The person who put in the event handler is also not available to query why it was done this way in the first place.

Thanks in advance for your help.

Regards,

Steve Lawrence

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