

## Re: GetKeyState() problem

**Source:**

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2004-02/0339.html>

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**From:** Jim Merkle (*jimmerkle\_at\_hotmail.com*)

**Date:** 02/10/04

Date: Tue, 10 Feb 2004 13:33:00 -0800

I don't want to know the state of the key. I want to know the state of the flags, especially for the toggle keys. The following is from the on-line help:

For Windows CE versions 1.0 through 2.01, GetKeyState is used to check the toggled state of the VK\_CAPITAL virtual key only. For Windows CE versions 2.10 and later, the toggle state of the VK\_NUMLOCK virtual key can also be checked.

The API, GetAsynchKeyState(), does not provide toggle state information. I changed my test program to use GetAsynchKeyState(). The Shift, Control, and Alt key functions worked great. GetAsynchKeyState() does not return toggle information.

Does the program that I initially supplied work on your unit to show the toggle state for VK\_CAPITAL with your unit? It no longer works on mine....

Jim

"Paul G. Tobey [eMVP]" <ptobey\_no\_spam@instrument\_no\_spam.com> wrote in message news:eTmMrDB8DHA.452@TK2MSFTNGP11.phx.gbl...

> *No, no layout manager stuff.*

>

> *I don't have any idea whether it changed or not. The documentation has, I believe, always indicated that GetAsynchKeyState() was the right way to find*

> *out the key state at this very instant. Maybe the layout manager stuff gave*

> *MS a push to make it actually work that way.*

>

> *Paul T.*

>

> *"Jim Merkle" <jimmerkle@hotmail.com> wrote in message*

> *news:eCS8HtA8DHA.1804@TK2MSFTNGP12.phx.gbl...*

>> *I've used GetKeyState() in CE2.12, CE3.0, and now in 4.2. In all*

> *previous*

>> *versions of CE, it would return the input system's current keyboard flag*

>> *values.*

>>  
>> *My matrix keyboard does not export any of the Layout Manager Interfaces.*  
>> *(MatrixKB.def) Does your keyboard driver export additional Layout  
Manager  
>> Interfaces defined in the keyboard's def file?*  
>>  
>> *LayoutMgrGetKeyboardType*  
>> *LayoutMgrGetKeyboardLayout*  
>> *LayoutMgrGetKeyboardLayoutName*  
>> *LayoutMgrGetKeyboardLayoutList*  
>> *LayoutMgrLoadKeyboardLayout*  
>> *LayoutMgrActivateKeyboardLayout*  
>> *IL\_00000409*  
>> *PS2\_AT\_00000409*  
>>  
>>  
>> *In previous versions of CE, any thread could call this API to determine  
> the  
> input system's understanding of these modifier flags.*  
>>  
>> *Did this API change scope, or is this Layout Manager layer somehow  
> involved?*  
>> *Adding the Layout Manager Layer is a fairly invasive task.*  
>>  
>> *Thanks,*  
>>  
>> *Jim*  
>>  
>> *"Paul G. Tobey [eMVP]" <ptobey\_no\_spam@instrument\_no\_spam.com> wrote in  
>> message news:uF6yfC27DHA.3288@TK2MSFTNGP11.phx.gbl...*  
>>> *Hi,*  
>>>  
>>> *Well, our device and its driver seem to be doing the right thing. Are  
> you  
>>> sure that GetKeyState() and not GetAsyncKeyState() is what you want  
> there?*  
>>> *I think that, based on how you're trying to use GetKeyState() it won't  
>> work.*  
>>> *If you read the help in eVC 4 on GetKeyState() you'll see that its  
> return  
>>> value is based on the current state, as far as the message pump for  
the  
>>> current thread knows, and you aren't running a message pump there.*  
>>>  
>>> *Paul T.*  
>>>  
>>> *"Paul G. Tobey [eMVP]" <ptobey\_no\_spam@instrument\_no\_spam.com> wrote  
in  
>>> message news:OApGC517DHA.2644@TK2MSFTNGP11.phx.gbl...*  
>>>> *Jim,*  
>>>>

>>>> *Hmmm. Well, I don't think that they are required, no. Our driver  
>> doesn't  
>>>> conform either, right now. Let me try some GetKeyState() tests and  
> see  
>>> what  
>>>> I see.  
>>>>  
>>>> Paul T.  
>>>>  
>>>> "Jim Merkle" <jimmerkle@hotmail.com> wrote in message  
>>>> news:%23SjVqf17DHA.2432@TK2MSFTNGP10.phx.gbl...  
>>>>> The source you are referring to is nk\kernel\kmisc.c,  
>> SC\_GetKeyState().  
>>>>> That is the kernel's method of accessing this function.  
Coredll.dll  
>>>>> provides access to this function as well (ordinal 860).  
>>>>>  
>>>>> Since none of the keyboard drivers export anything like this  
> function,  
>>> it  
>>>>> isn't part of a keyboard driver, and is contained in another  
module.  
>>>>>  
>>>>> Since my keyboard driver doesn't conform to the Layout Manager  
>>> Interface,  
>>>>> I  
>>>>> was wondering if that had anything to do with it...? Are the  
Layout  
>>>> Manager  
>>>>> Interface routines requires as of 4.2?  
>>>>>  
>>>>>  
>>>>> Jim  
>>>>>  
>>>>>  
>>>>>  
>>>>>> "Paul G. Tobey [eMVP]" <ptobey\_no\_spam@instrument\_no\_spam.com>  
wrote  
>>> in  
>>>>> message news:eLj9xl07DHA.2712@tk2msftngp13.phx.gbl...  
>>>>>> The source for GetKeyState() is in the private source code that  
>> ships  
>>>> with  
>>>>>> PB4.2. It appears to me that the MID\_GetKeyState entry in an  
> array  
>> of  
>>>>>> keyboard driver functions is being called with the virtual key  
> code  
>>>> passed  
>>>>>> to it as a parameter...  
>>>>>>>*

>>>>> Paul T.  
>>>>>  
>>>>>  
>>>>> "Jim Merkle" <jimmerkle@hotmail.com> wrote in message  
>>>>> news:%23Vic3g07DHA.2832@tk2msftngp13.phx.gbl...  
>>>>>> Using Windows CE.NET 4.2, with a Matrix Keyboard Driver.  
>>>>>>  
>>>>>> The keyboard driver is sending the appropriate VK codes to the  
>> input  
>>>>> system  
>>>>>> in that the Alt key does produce the menus on the CMD or  
Pocket  
>> Word  
>>>>>> applications.  
>>>>>>>  
>>>>>>> Does 4.2 route the GetKeyState() though new Keyboard APIs that  
> I'm  
>>> not  
>>>>>> exposing?  
>>>>>>>  
>>>>>>> Jim M.  
>>>>>>>  
>>>>>>>  
>>>>>>> "Paul G. Tobey [eMVP]" <ptobey\_no\_spam@instrument\_no\_spam.com>  
>> wrote  
>>>> in  
>>>>>>> message news:%23Mg6HQ07DHA.2676@TK2MSFTNGP10.phx.gbl...  
>>>>>>>> What kind of device and what version of the OS is this  
running  
>> on?  
>>>>>>>>  
>>>>>>>> Paul T.  
>>>>>>>>  
>>>>>>>> "Jim Merkle" <jimmerkle@hotmail.com> wrote in message  
>>>>>>>> news:On%23mkK07DHA.1428@TK2MSFTNGP12.phx.gbl...  
>>>>>>>>> It seems I can't read the state of my Alt, Control, or  
Shift  
>>>>> flags....  
>>>>>>>>>  
>>>>>>>>> The following code was generated to return the status of  
> these  
>>>>> flags:  
>>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>  
>>>>>>>  
>>>>>>  
>>>>>  
>>>>  
>>>  
>>  
>  
>

```
//-----  
>>>>>>>>> -----  
>>>>>>>>> int WINAPI WinMain( HINSTANCE hInstance,  
>>>>>>>>> HINSTANCE hPrevInstance,  
>>>>>>>>> LPTSTR lpCmdLine,  
>>>>>>>>> int nCmdShow)  
>>>>>>>>> {  
>>>>>>>>> for(int i=0;i<400;i++)  
>>>>>>>>> {  
>>>>>>>>>  
>>>>>>>>> SHORT sControl = GetKeyState(VK_CONTROL);  
>>>>>>>>> RETAILMSG(1,(L"sControl: 0x%X\r\n",sControl));  
>>>>>>>>>  
>>>>>>>>> SHORT sShift = GetKeyState(VK_SHIFT);  
>>>>>>>>> RETAILMSG(1,(L"sShift: 0x%X\r\n",sShift));  
>>>>>>>>>  
>>>>>>>>> SHORT sAlt = GetKeyState(VK_MENU);  
>>>>>>>>> RETAILMSG(1,(L"sAlt: 0x%X\r\n",sAlt));  
>>>>>>>>>  
>>>>>>>>> SHORT sCaps = GetKeyState(VK_CAPITAL);  
>>>>>>>>> RETAILMSG(1,(L"sCaps: 0x%X\r\n",sCaps));  
>>>>>>>>>  
>>>>>>>>> Sleep(800);  
>>>>>>>>>  
>>>>>>>>> }  
>>>>>>>>>  
>>>>>>>>> return 0;  
>>>>>>>>> } // WinMain  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
>>>>>>>>>  
//-----  
>>>>>>>>> -----  
>>>>>>>>>  
>>>>>>>>> The debug messages only return 0x0 regardless of the state  
> of  
>>> the  
>>>>>>> input  
>>>>>>>>> system "flags".  
>>>>>>>>>  
>>>>>>>>> If you have any ideas, please let me know...  
>>>>>>>>>  
>>>>>>>>> Thanks,  
>>>>>>>>>  
>>>>>>>>>
```

