

Re: ShowCursor(FALSE) should hide cursor!

Source: <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.language/2005-12/msg01042.html>

- *From:* "Doug Harrison [MVP]" <dsh@xxxxxxx>
 - *Date:* Wed, 28 Dec 2005 10:52:07 -0600
-

On Tue, 27 Dec 2005 22:26:02 -0800, "Robby"
<Robby@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

>Although, I fully appreciate your post and I would like to confirm to myself
>that I am not absorbing this in a misleading way.
>
>The way I am understanding this, is that LoadCursor loads the specified
>cursor resource from the executable (.EXE) file associated with an
>application instance.

If it's a predefined cursor, e.g. IDC_ARROW, then it comes from the OS.

>(In plain english, it loads a cursor type for the
>current window!) Right!

The function LoadCursor does not have an HWND parameter, so that tells you the cursor it loads is not associated with a window. The same can be said for SetCursor. So, in what sense is a cursor associated with a window? A window sets the cursor for the process that created it in response to WM_SETCURSOR, and the cursor remains in effect for the process until another window belonging to the process changes it.

>SetCursor, sets the cursor shape. The cursor must have been created by the
>CreateCursor function or loaded by the LoadCursor or LoadImage function.
>
>So, so far, load the cursor with LoadCursor and then set its shape! Right!
>
>ShowCursor, shows the cursor. If I say, ShowCursor(True) the internal
>display counter increments. If I say, ShowCursor(FALSE) the internal display
>counter decrements. And any time the counter is negative, the cursor is
>hidden.(I have experimented with this and I am surprised in that why Windows
>chose this mechanism. (Why not simply say, ShowCursor(True) shows the cursor
>and ShowCursor(FALSE) hides the cursor. Why must we add this "internal
>counter and hide if negative stuff!")
>
>Anyways, I am sure there is a reason, but right now it is beyond me!

It was really important back in the day when video cards didn't support the cursor in hardware. A software cursor must be hidden before drawing over

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the area where it resides, else you can get an effect known as "mouse droppings":

<http://catb.org/~esr/jargon/html/M/mouse-droppings.html>

Suppose you had two drawing functions, one which renders the background and the other the foreground. For safety reasons, each hides the cursor and restores it when done. Now suppose you wrote this function:

```
void draw_everything()
{
draw_bk();
draw_fg();
}
```

This would cause the cursor to flicker. You could fix it by bracketing the contents with hide/show cursor calls, but for that to work, the visibility state needs to be reference-counted. (I believe Windows always did the hiding/showing for you in BeginPaint/EndPaint, but other OS's did not.)

—
Doug Harrison
Visual C++ MVP

• Follow-Ups:

- ◆ **Re: ShowCursor(FALSE) should hide cursor!**
◇ From: Robby
- ◆ **Re: ShowCursor(FALSE) should hide cursor!**
◇ From: Alexander Grigoriev

• References:

- ◆ **ShowCursor(FALSE) should hide cursor!**
◇ From: Robby
- ◆ **Re: ShowCursor(FALSE) should hide cursor!**
◇ From: Doug Harrison [MVP]
- ◆ **Re: ShowCursor(FALSE) should hide cursor!**
◇ From: Robby

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