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Subject: More bugs in DBW's VT100 (OR ANY VT100 and another system)

Posted by [Anonymous](#) on Tue, 02 Dec 1986 16:45:20 GMT

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Originally posted by: rick&#64;mips.UUCP (Rick Frazier)

Article-I.D.: mips.782

Posted: Tue Dec 2 11:45:20 1986

Date-Received: Tue, 2-Dec-86 21:18:37 EST

References:

Organization: MIPS ... where RISC is a way of life

Lines: 49

> -----

> I compiled with Lattice (version ?..?). If I keep pressing any of the arrow  
> keys in vi, a lot of lines with just one character (usually "C") get inserted  
> in the in the file.  
>

I'm sure that many of the "netlanders" out there have seen this particular "symptom" before , especially those working on \*nix systems. It seems to be a result of the control codes that the vt100 sends for the arrow keys, with interaction due to character buffering:

In vi, an escape [ESC] (alone) signals the program to exit the current mode. However, the arrow keys for a vt100 terminals send [ESC] O A for the up, [ESC] O B for the down, [ESC] O C for the right, and [ESC] O D for the left arrows. Since O is the vt100 command for "open line above", the result, if you are trying to scroll up, is a string of lines with a capital A in column 1. (the editor sees the following: [ESC] (quit doing last command) O (open line above) A (this is the character it puts on the line) for each time the up arrow is pressed.

Two things seem to be involved:

- 1) the rate at which you press the key (or repeat rate of the terminal)
- 2) the system load.

When a system is lightly loaded, there is time to take each character individually and operation is what we consider normal. As the system load increases, the characters get stacked in a buffer, and there is no data to indicate relative timing of the input of the characters, and the editor seems to take these characters (from the buffer) as individual keystrokes, not as a composite keycode (what was actually sent when you pressed the arrow key)

A third event can cause the same result is pressing any of the arrow keys while you are in any of the insert modes (I just did in rn, and it reminded

me in the usual fashion, a string of single-character lines).  
This particular problem is an operator error, and cannot be considered a fault of any vt100 emulator/terminal/system.

Whether the (long) response above is directly applicable to the program running on the amiga or not, I think it is important that those out there without the "benefit" of having lived on \*nix systems for years be aware that we have lived with this problem all along, so the problem may not be a fault in the program at all..... It's a FEATURE of vi :- ) and has been for as long as I have been working on \*nix systems.

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--Rick Frazier-- DISCLAIMER: The above is individual opinion (the result of my imperfect recall of facts, real or imagined) in no way representing anyone else.

UUCP: {decvax,ucbvax,ihnp4}!decwrl!mips!rick      DDD: 408-720-1700 x278

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Subject: Re: More bugs in DBW's VT100 (OR ANY VT100 and another system)  
Posted by [sean](#) on Thu, 04 Dec 1986 22:09:57 GMT

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Article-I.D.: ukma.5261

Posted: Thu Dec 4 17:09:57 1986

Date-Received: Fri, 5-Dec-86 06:11:09 EST

References:

Reply-To: sean@ukma.UUCP (Sean Casey)

Organization: The Leaning Tower of Patterson Office @ The Univ. of KY

Lines: 34

In article rick@mips.UUCP (Rick Frazier) writes:

>> I compiled with Lattice (version ?.??). If I keep pressing any of the arrow  
>> keys in vi, a lot of lines with just one character (usually "C") get inserted  
>> in the in the file.

>

> I'm sure that many of the "netlanders" out there have seen this particular  
> "symptom" before , especially those working on \*nix systems. It seems to be  
> a result of the control codes that the vt100 sends for the arrow keys,  
> with interaction due to character buffering:

The explanation is a good one. I have experienced the same problem on both VT100s and VT102s (real ones from DEC). Considering that can be both a mode switch for vi AND an arrow key sequence, vi does quite well in differentiating the two.

The solution:

Don't use arrow keys in vi! Use 'h','j','k', and 'l'. This way you (1) don't have the problem with holding down the keys, (2) have your fingers much closer to the home keys, (3) can move much quicker because your fingers don't have to leave the keys, and (4) will be ready to play games that use the hjkl keys :-). If you need to move rapidly right and left, use 'w', and 'b' to move forward and back words, and use '0', and '\$' to move to the beginning and end of a line. To move up and down quickly, use ^F, ^B, ^D, and ^U. Almost any vi command can be prefixed with a repeat count.

Happy editing!

Sean

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Subject: Re: More bugs in DBW's VT100 (OR ANY VT100 and another system)  
Posted by [gary](#) on Sat, 06 Dec 1986 08:54:43 GMT  
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Article-I.D.: well.2164  
Posted: Sat Dec 6 03:54:43 1986  
Date-Received: Sun, 7-Dec-86 03:03:53 EST  
References:  
Sender:  
Reply-To: gary@well.UUCP (Gary J. Albert)  
Followup-To:  
Distribution:  
Organization: Whole Earth Lectronic Link, Sausalito CA  
Keywords:

I used to have the problem in 'vi' if having the escape at the start of the arrow key's sequence being mistaken to mean exit insert mode. Then I read the manual again and found that the 'h', 'j', 'k', and 'l' keys do the same thing without sending any escapes, thereby preventing the problem. This has the added advantage of letting you keep your hands on the home row for those typists out there.

Gary ALbert

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Subject: Re: More bugs in DBW's VT100 (OR ANY VT100 and another system)

Posted by [rar](#) on Mon, 08 Dec 1986 20:19:01 GMT

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Article-I.D.: auc.32091

Posted: Mon Dec 8 15:19:01 1986

Date-Received: Mon, 8-Dec-86 22:35:47 EST

References:

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Subject: Re: More bugs in DBW's VT100 (OR ANY VT100 and another system)

Posted by [mwm](#) on Tue, 09 Dec 1986 07:06:54 GMT

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Article-I.D.: jade.1859

Posted: Tue Dec 9 02:06:54 1986

Date-Received: Tue, 9-Dec-86 11:16:16 EST

References:

Sender: usenet@jade.BERKELEY.EDU

Reply-To: mwm@eris.BERKELEY.EDU (Mike (Don't have strength to leave) Meyer)

Organization: Missionaria Phonibalonica

Lines: 15

In article [sean@ukma.UUCP](#) (Sean Casey) writes:

> Don't use arrow keys in vi! Use 'h','j','k', and 'l'. This way you (1) don't

Better yet, use Emacs! :-) [Really, I \*DON'T\* want to start a round of editor wars, but I couldn't resist!]

I've got mouse support code in vt100 (real easy to do), so I can point with my mouse and just click. Or C-click to delete a char, or ALT-click to delete a word, or ....

As soon as I de-X-ify the GNU elisp, I'm going to turn it all loose. Sometime next week, I hope. The GNU stuff should look like the mouse support in the hot-mouse version of mg1a.

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