

Re: Performance benefits of rep/loop?

Source: <http://coding.derkeiler.com/Archive/Assembler/comp.lang.asm.x86/2004-05/0583.html>

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Date: 05/31/04

Date: Mon, 31 May 2004 01:51:24 +0000 (UTC)

"Ivan Korotkov" <koroNOSPAMtkov2@zteIDOT.ru> wrote in message
news:c98dk1\$2j3i\$1@news1.macomnet.ru...

> > *Page stealing or whatever you'd like to call it is a good idea. Evicting
> > files from the cache to keep more than 1 GB of ram free is utterly
stupid.*

> > *They don't even try to predict the paging demand. I turn off the swap
file*

> > *as well to avoid this undesirable behavior.*

>

> *But Windows still is able to remove image pages from RAM and page-in them
> again, isn't it? And furthermore, doesn't it's behaviour mainly end up
with*

> *just moving pages between stand-by and ready lists without actually*

> *"page-inning" and "page-outting" to/from HDD?*

Yes, or at least I presume so; otherwise I would expect that page faults did not ever occur, but Windows Explorer continues to fault about once per second. However, modified pages are now forced into memory since the OS has nowhere to put them. That seems to dramatically improve performance of most apps. The delay when switching between applications used to be quite noticeable.

The main problem is that Windows is too aggressive when trying to trim working set sizes. It will look for victim pages even when there is no logical need for it (e.g. 200-300 MB commit charge on a machine with 2+ GB of ram). It won't use that memory for the file cache necessarily, either; it keeps a number of pages ready to be allocated, and I suspect this number is proportional to the amount of system memory.

-Matt