
Subject: Re: How Inactive may be much greather than cached?

Posted by [Nick Piggin](#) on Thu, 18 Oct 2007 07:27:00 GMT

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On Thursday 18 October 2007 17:14, Vasily Averin wrote:

> Nick Piggin wrote:

> > Hi,

> >

> > On Thursday 18 October 2007 16:24, Vasily Averin wrote:

> >> Hi all,

> >>

> >> could anybody explain how "inactive" may be much greater than "cached"?

> >> stress test (<http://weather.ou.edu/~apw/projects/stress/>) that writes

> >> into removed files in cycle puts the node to the following state:

> >>

> >> MemTotal: 16401648 kB

> >> MemFree: 636644 kB

> >> Buffers: 1122556 kB

> >> Cached: 362880 kB

> >> SwapCached: 700 kB

> >> Active: 1604180 kB

> >> Inactive: 13609828 kB

> >>

> >> At the first glance memory should be freed on file closing, nobody

> >> refers to file and ext3_delete_inode() truncates inode. We can see that

> >> memory is go away from "cached", however could somebody explain why it

> >> become "invalid" instead be freed? Who holds the references to these

> >> pages?

> >

> > Buffers, swap cache, and anonymous.

>

> But buffers and swap cache are low (1.1 Gb and 700kB in this example) and

> anonymous should go away when process finished.

Ah, I didn't see it was an order of magnitude out.

Some filesystems, including I believe, ext3 with data=ordered, can leave orphaned pages around after they have been truncated out of the pagecache. These pages get left on the LRU and vmscan reclaims them pretty easily.

Try ext3 data=writeback, or even ext2.
