
Subject: Re: Kernel text size with the pid namespaces fixes
Posted by [Pavel Emelianov](#) on Tue, 25 Sep 2007 14:32:44 GMT
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Cedric Le Goater wrote:

> Hello Pavel !

>

> Pavel Emelyanov wrote:

>> Hi, Suka

>>

>> I have posted tree patches with un-inlining of some macros

>> and static inline calls that are expanded into another call.

>>

>> At my i386 notebook this saved about half-a-kilo from the

>> vmlinux. Could you please check these patches at your

>> boxes/configs to see how much progress we have here.

>>

>> Here's the combined patch for 2.6.24-rc8-mm1

>

> on my qemu configuration, scripts/bloat-o-meter gave the following
> results.

>

> it would be interesting to run some micro benchmark. Did you have

> time to do that ?

>

> Thanks,

>

> C.

>

> add/remove: 9/0 grow/shrink: 3/47 up/down: 194/-683 (-489)

> function old new delta

> find_task_by_vpid - 29 +29

> find_vpid - 25 +25

> task_tgid_nr_ns - 22 +22

> task_session_nr_ns - 22 +22

> task_pgrp_nr_ns - 22 +22

> find_task_by_pid - 19 +19

> task_pid_nr_ns - 16 +16

> find_task_by_pid_ns - 16 +16

> find_pid - 15 +15

> proc_task_readdir 762 766 +4

> msg_exit_ns 117 119 +2

> _request_firmware 688 690 +2

> nfs_readpage_truncate_uninitialised_page 298 297 -1

> sys_swapoff 1898 1896 -2

I see you have an interesting effect as well. Look, if you generate
the .i file for mm/swapfile.c (the one where sys_swapoff is) for

two cases - with and without this patch - you will see that the .i files differ in one place only - the find_task_xxx calls have transformed from macros into extern calls and (!) no places in this sys_swapoff() use them.

The question is - WHY its size changed?
Why gcc produces different code on the same input?

BTW, you're lucky - your sys_swapoff shrank, but mine grew up just like yours msg_exit_ns() which has nothing to do with the functions changed :(

```
> set_get_cmap                332   330   -2
> __iovec_copy_from_user_inatomic      88   86   -2
> proc_pid_readdir            438   434   -4
> init_pit_clocksource         82    78   -4
> do_notify_parent_cldstop      297   293   -4
> do_notify_parent            394   390   -4
> kill_proc                   39    34   -5
> sys_timer_create             720   713   -7
> do_setlink                   796   789   -7
> debug_rt_mutex_print_deadlock        406  399   -7
> check_clock                  122   115   -7
> rest_init                    78    69   -9
> posix_cpu_clock_get          221   212   -9
> __set_special_pids           154   144  -10
> vma_adjust                   855   844  -11
> tty_ioctl                   3274  3263  -11
> kthreadd                     248   237  -11
> sys_kill                     313   301  -12
> sys_capget                   285   273  -12
> sys_getsid                   128   114  -14
> sys_getpgid                  128   114  -14
> posix_cpu_timer_create        240   226  -14
> kill_proc_info               45    31  -14
> find_get_pid                 31    16  -15
> sys_sched_getscheduler        92    76  -16
> sys_sched_getparam           143   127  -16
> sys_get_robust_list          149   133  -16
> sched_setaffinity            259   243  -16
> sched_getaffinity            114    98  -16
> ptrace_get_task_struct        90    74  -16
> futex_lock_pi                2435  2419  -16
> f_setown                     68    52  -16
> do_tkill                     280   264  -16
> do_sched_setscheduler         113    97  -16
> sys_sched_rr_get_interval     161   141  -20
> sys_capset                   702   681  -21
```

> eligible_child	215	191	-24
> do_task_stat	2135	2107	-28
> sys_setpriority	446	416	-30
> sys_setpgid	419	389	-30
> sys_ioprio_set	471	441	-30
> sys_ioprio_get	388	358	-30
> sys_getpriority	439	409	-30
> proc_pid_status	1216	1186	-30
> do_wait	2677	2639	-38
>			

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