
Subject: [PATCH] Simplify /proc/cgroups
Posted by [menage](#) on Thu, 18 Oct 2007 02:56:36 GMT
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This patch simplifies /proc/cgroups by removing pointers and some debugging information, and simply presenting a list of subsystems, which hierarchy they are part of (if any) and the number of cgroups created for that subsystem. Hierarchy id is determined by the bitmask of subsystem ids attached to that hierarchy.

Signed-off-by: Paul Menage <menage@google.com>

Several people have commented that /proc/cgroups is too confusing or contains strange information. Here's an attempt to simplify it. New typical output looks like:

```
#subsys_name hierarchy num_cgroups
cpuset 1 2
cpuacct 10 1
debug 0 1
ns 10 1
memory 0 1
cpu 0 1
```

Maybe there should be more tabs so that the columns line up better?
But then it'll be out of line if people create subsystems with longer names ...

```
kernel/cgroup.c | 25 ++++-----
1 file changed, 4 insertions(+), 21 deletions(-)
```

Index: container-2.6.23-mm1/kernel/cgroup.c

=====

--- container-2.6.23-mm1.orig/kernel/cgroup.c

+++ container-2.6.23-mm1/kernel/cgroup.c

```
@@ -2403,31 +2403,14 @@ static int proc_cgroupstats_show(struct
    int i;
    struct cgroupfs_root *root;
```

```
+ seq_puts(m, "#subsys_name\thierarchy\tnum_cgroups\n");
    mutex_lock(&cgroup_mutex);
- seq_puts(m, "Hierarchies:\n");
- for_each_root(root) {
-     struct cgroup_subsys *ss;
-     int first = 1;
-     seq_printf(m, "%p: bits=%lx cgroups=%d (", root,
```

```

-   root->subsys_bits, root->number_of_cgroups);
-   for_each_subsys(root, ss) {
-       seq_printf(m, "%s%s", first ? "" : ", ", ss->name);
-       first = false;
-   }
-   seq_putc(m, ' ');
-   if (root->sb) {
-       seq_printf(m, " s_active=%d",
-           atomic_read(&root->sb->s_active));
-   }
-   seq_putc(m, '\n');
- }
- seq_puts(m, "Subsystems:\n");
  for (i = 0; i < CGROUP_SUBSYS_COUNT; i++) {
      struct cgroup_subsys *ss = subsys[i];
-   seq_printf(m, "%d: name=%s hierarchy=%p\n",
-       i, ss->name, ss->root);
+   seq_printf(m, "%s\t%d\t%d\n",
+       ss->name, ss->root->subsys_bits,
+       ss->root->number_of_cgroups);
  }
- seq_printf(m, "Control Group groups: %d\n", css_set_count);
  mutex_unlock(&cgroup_mutex);
  return 0;
}

```

Containers mailing list
Containers@lists.linux-foundation.org
<https://lists.linux-foundation.org/mailman/listinfo/containers>

Subject: Re: [PATCH] Simplify /proc/cgroups
Posted by [KAMEZAWA Hiroyuki](#) on Thu, 18 Oct 2007 03:17:45 GMT
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On Wed, 17 Oct 2007 19:56:36 -0700 (PDT)
menage@google.com (Paul Menage) wrote:

```

> + seq_printf(m, "%s\t%d\t%d\n",
> +     ss->name, ss->root->subsys_bits,
> +     ss->root->number_of_cgroups);
> }

```

Because subsys_bits is unsigned long, then %lu or %lx is better.

Thanks,
-Kame

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