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Subject: Re: [RFC][PATCH 7/7] CGroup API: Update cpuset to use cgroup structured file API

Posted by [Balbir Singh](#) on Mon, 18 Feb 2008 11:13:33 GMT

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\* Balbir Singh <balbir@linux.vnet.ibm.com> [2008-02-18 16:42:05]:

> Li Zefan wrote:

> > Paul Jackson wrote:

> >> Ok ... this would (I suspect, just from code reading, no bytes were  
> >> harmed in actual testing of this) have a minor change to how white  
> >> space is handled writing integer flags to cpuset files, and a minor  
> >> inconsistency.

> >>

> >> 1) Existing cpuset code lets you set a flag (e.g. cpu\_exclusive) by doing:

> >> echo '1 rumpelstiltskin' > cpu\_exclusive # same as: echo 1 > cpu\_exclusive

> >> With this patch, that probably fails, EINVAL.

> >>

> >> 2) With this patch, one can write "1" or "1\n" to cpuset integer files, but one  
> >> cannot successfully write "1\r\n" or "1 " or "1 \n". However, for the cpuset  
> >> control files that take strings, not single integers, one -can- have any mix  
> >> of trailing white space.

> >>

> >> So far as I know, I have no requirement to write rumpelstiltskin to cpuset files ;).

> >> So I'm content to let the minor change in (1) pass without further comment.

> >>

> >> I'd like to recommend consideration of the following patch, to address the  
> >> minor inconsistency of (2), and to save a few bytes of kernel text space.

> >>

> >

> > For memory controller, we have to do this:

> > echo -n 4m > memory.limit\_in\_bytes

> > '-n' is necessary. This is another inconsistency..

>

Hi. Li,

I have a similar patch that fixes the inconsistency.

It's attached below. Andrew, could we please consider this patch for -mm

The memory controller has a requirement that while writing values, we need to use echo -n. This patch fixes the problem and makes the UI more consistent.

Signed-off-by: Balbir Singh <balbir@linux.vnet.ibm.com>

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```
Documentation/controllers/memory.txt | 8 +++++----
kernel/res_counter.c                 | 1 +
```

2 files changed, 5 insertions(+), 4 deletions(-)

```
diff -puN mm/memcontrol.c~memory-controller-fix-crlf-echo-issue mm/memcontrol.c
diff -puN kernel/res_counter.c~memory-controller-fix-crlf-echo-issue kernel/res_counter.c
--- linux-2.6.25-rc2/kernel/res_counter.c~memory-controller-fix-crlf-echo-issue 2008-02-18
16:15:02.000000000 +0530
+++ linux-2.6.25-rc2-balbir/kernel/res_counter.c 2008-02-18 16:16:16.000000000 +0530
@@ -113,6 +113,7 @@ ssize_t res_counter_write(struct res_cou
```

```
ret = -EINVAL;
```

```
+ strstr(buf);
if (write_strategy) {
    if (write_strategy(buf, &tmp)) {
        goto out_free;
```

```
diff -puN Documentation/controllers/memory.txt~memory-controller-fix-crlf-echo-issue
Documentation/controllers/memory.txt
```

```
---
linux-2.6.25-rc2/Documentation/controllers/memory.txt~memory-controller-fix-crlf-echo-issue 2008
-02-18 16:18:26.000000000 +0530
+++ linux-2.6.25-rc2-balbir/Documentation/controllers/memory.txt 2008-02-18
16:18:44.000000000 +0530
@@ -164,7 +164,7 @@ c. Enable CONFIG_CGROUP_MEM_CONT
```

Since now we're in the 0 cgroup,  
We can alter the memory limit:

```
-# echo -n 4M > /cgroups/0/memory.limit_in_bytes
+# echo 4M > /cgroups/0/memory.limit_in_bytes
```

NOTE: We can use a suffix (k, K, m, M, g or G) to indicate values in kilo,  
mega or gigabytes.

```
@@ -185,7 +185,7 @@ number of factors, such as rounding up t
availability of memory on the system. The user is required to re-read
this file after a write to guarantee the value committed by the kernel.
```

```
-# echo -n 1 > memory.limit_in_bytes
+# echo 1 > memory.limit_in_bytes
# cat memory.limit_in_bytes
4096 Bytes
```

```
@@ -197,7 +197,7 @@ caches, RSS and Active pages/Inactive pa
```

The memory.force\_empty gives an interface to drop \*all\* charges by force.

```
-# echo -n 1 > memory.force_empty
+# echo 1 > memory.force_empty
```

will drop all charges in cgroup. Currently, this is maintained for test.

@@ -238,7 +238,7 @@ rmdir() if there are no tasks.

The type of memory accounted by the cgroup can be limited to just mapped pages by writing "1" to memory.control\_type field

```
-echo -n 1 > memory.control_type  
+echo > memory.control_type
```

## 5. TODO

—

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Warm Regards,  
Balbir Singh  
Linux Technology Center  
IBM, ISTL

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

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