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Subject: [RFC][PATCH] Restore fd flags in restarted process  
Posted by [Sukadev Bhattiprolu](#) on Tue, 17 Jun 2008 21:29:02 GMT  
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>From e33c0c11cc612896cb12ddad1925037e52e76eb3 Mon Sep 17 00:00:00 2001  
From: Sukadev Bhattiprolu <sukadev@linux.vnet.ibm.com>  
Date: Tue, 17 Jun 2008 12:32:30 -0700  
Subject: [PATCH] Restore fd flags in restarted process.

We currently get these flags using fcntl(F\_GETFL) and save them while  
checkpointing but we do not restore them when restarting the process.

Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>

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cr.c | 10 ++++++++--

sci.h | 7 +----

2 files changed, 13 insertions(+), 4 deletions(-)

```
diff --git a/cr.c b/cr.c
index c52dd70..5163a3d 100644
--- a/cr.c
+++ b/cr.c
@@ -251,7 +251,7 @@ int getfdinfo(pinfo_t *pi)
 if (len >= 0) pi->fi[n].name[len] = 0;
 stat(dname, &st);
 pi->fi[n].mode = st.st_mode;
- pi->fi[n].flag = PT_FCNTL(syscallpid, pi->fi[n].fdnum, F_GETFL);
+ pi->fi[n].flag = PT_FCNTL(syscallpid, pi->fi[n].fdnum, F_GETFL, 0);
 if (S_ISREG(st.st_mode))
 pi->fi[n].offset = (off_t)PT_LSEEK(syscallpid, pi->fi[n].fdnum, 0, SEEK_CUR);
 else if (S_ISFIFO(st.st_mode))
@@ -841,6 +841,14 @@ int restore_fd(int fd, pid_t pid)
 }

+
+ /*
+ * Restore any special flags this fd had
+ */
+ ret = PT_FCNTL(pid, fdinfo->fdnum, F_SETFL, fdinfo->flag);
+ DEBUG("---- restore_fd() fd %d setfl flag 0x%x, ret %d\n",
+ fdinfo->fdnum, fdinfo->flag, ret);
+
+
 free(fdinfo);
}
if (1) {
```

diff --git a/sci.h b/sci.h  
index b0cac3c..0b32ae4 100644

```
--- a/sci.h
+++ b/sci.h
@@ @ -138,10 +138,11 @@ int call_func(pid_t pid, int scratch, int flag, int funcaddr, int argc, ...);
 0, 0, off, \
 0, 0, w)

#define PT_FCNTL(p, fd, cmd) \
- ptrace_syscall(p, 0, 0, SYS_fcntl, 2, \
+#define PT_FCNTL(p, fd, cmd, arg) \
+ ptrace_syscall(p, 0, 0, SYS_fcntl, 3, \
 0, 0, fd, \
- 0, 0, cmd)
+ 0, 0, cmd, \
+ 0, 0, arg)

#define PT_CLOSE(p, fd) \
 ptrace_syscall(p, 0, 0, SYS_close, 1, \
--
```

## 1.5.2.5

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

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Subject: Re: [RFC][PATCH] Restore fd flags in restarted process  
Posted by [serue](#) on Tue, 17 Jun 2008 22:31:11 GMT

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Quoting sukadev@us.ibm.com (sukadev@us.ibm.com):

>  
> >From e33c0c11cc612896cb12ddad1925037e52e76eb3 Mon Sep 17 00:00:00 2001  
> From: Sukadev Bhattiprolu <sukadev@linux.vnet.ibm.com>  
> Date: Tue, 17 Jun 2008 12:32:30 -0700  
> Subject: [PATCH] Restore fd flags in restarted process.  
>  
> We currently get these flags using fcntl(F\_GETFL) and save them while  
> checkpointing but we do not restore them when restarting the process.  
>  
> Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>

Thanks, will apply and test.

-serge

> ---  
> cr.c | 10 +++++++-

```

> sci.h | 7 +++++-
> 2 files changed, 13 insertions(+), 4 deletions(-)
>
> diff --git a/cr.c b/cr.c
> index c52dd70..5163a3d 100644
> --- a/cr.c
> +++ b/cr.c
> @@ -251,7 +251,7 @@ int getfdinfo(pinfo_t *pi)
>     if (len >= 0) pi->fi[n].name[len] = 0;
>     stat(dname, &st);
>     pi->fi[n].mode = st.st_mode;
> - pi->fi[n].flag = PT_FCNTL(syscallpid, pi->fi[n].fdnum, F_GETFL);
> + pi->fi[n].flag = PT_FCNTL(syscallpid, pi->fi[n].fdnum, F_GETFL, 0);
>     if (S_ISREG(st.st_mode))
>         pi->fi[n].offset = (off_t)PT_LSEEK(syscallpid, pi->fi[n].fdnum, 0, SEEK_CUR);
>     else if (S_ISFIFO(st.st_mode))
> @@ -841,6 +841,14 @@ int restore_fd(int fd, pid_t pid)
>     }
> }
>
> + /*
> + * Restore any special flags this fd had
> + */
> + ret = PT_FCNTL(pid, fdinfo->fdnum, F_SETFL, fdinfo->flag);
> + DEBUG("---- restore_fd() fd %d setfl flag 0x%x, ret %d\n",
> + fdinfo->fdnum, fdinfo->flag, ret);
> +
> +
> + free(fdinfo);
> }
> if (1) {
> diff --git a/sci.h b/sci.h
> index b0cac3c..0b32ae4 100644
> --- a/sci.h
> +++ b/sci.h
> @@ -138,10 +138,11 @@ int call_func(pid_t pid, int scratch, int flag, int funcaddr, int argc, ...);
>     0, 0, off, \
>     0, 0, w)
>
> -#define PT_FCNTL(p, fd, cmd) \
> -ptrace_syscall(p, 0, 0, SYS_fcntl, 2, \
> +#define PT_FCNTL(p, fd, cmd, arg) \
> +ptrace_syscall(p, 0, 0, SYS_fcntl, 3, \
>     0, 0, fd, \
> - 0, 0, cmd)
> + 0, 0, cmd, \
> + 0, 0, arg)
>

```

```
> #define PT_CLOSE(p, fd) \  
>     ptrace_syscall(p, 0, 0, SYS_close, 1, \  
> --  
> 1.5.2.5
```

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