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Subject: [RFC][PATCH][cryo] Read/print contents of fifo  
Posted by [Sukadev Bhattiprolu](#) on Tue, 17 Jun 2008 21:30:40 GMT  
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>From 0f5b3ea20238e0704a71252a3d495ca0db61e1dc Mon Sep 17 00:00:00 2001  
From: Sukadev Bhattiprolu <sukadev@linux.vnet.ibm.com>  
Date: Sat, 14 Jun 2008 11:45:00 -0700  
Subject: [RFC][PATCH] Read/print contents of fifo.

To test that checkpoint/restart of pipes is working, read one byte at a time from the pipe and write to stdout.

After checkpoint, both the checkpointed application and the restarted application should continue reading from the checkpoint.

The '-e' option to the program, tests with an empty pipe.

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

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tests/pipe.c | 32 ++++++-----  
1 files changed, 28 insertions(+), 4 deletions(-)

diff --git a/tests/pipe.c b/tests/pipe.c

index cc3cdfd..0812cb3 100644

--- a/tests/pipe.c

+++ b/tests/pipe.c

@ @ -3,25 +3,49 @ @

#include <unistd.h>

#include <stdlib.h>

#include <string.h>

+#include <errno.h>

+#include <sys/fcntl.h>

-int main()

+int main(int argc, char \*argv[])

{

int i = 0;

+ int rc;

int fds[2];

+ int c;

+ int empty;

char \*buf = "abcdefghijklmnopqrstuvwxyz";

+ /\*

+ \* -e: test with an empty pipe

+ \*/

+ empty = 0;

+ if (argc > 1 && strcmp(argv[1], "-e") == 0)

```

+ empty = 1;
+
+ if (pipe(fds) < 0) {
+     perror("pipe()");
+     exit(1);
+ }

- write(fds[1], buf, strlen(buf));
+ if (!empty)
+ write(fds[1], buf, strlen(buf));

+ if (fcntl(fds[0], F_SETFL, O_NONBLOCK) < 0) {
+     perror("fcntl()");
+     exit(1);
+ }
+ printf("Running as %d\n", getpid());
+ while (i<100) {
+     sleep(1);
- if (i%5 == 0)
-     printf("i is %d (pid %d)\n", i, getpid());
+ if (i%5 == 0) {
+     c = errno = 0;
+     rc = read(fds[0], &c, 1);
+     if (rc != 1) {
+         perror("read() failed");
+     }
+     printf("i is %d (pid %d), c is %c\n", i, getpid(), c);
+ }
+ }
+ i++;
+ }
+ }
--
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][cryo] Read/print contents of fifo  
Posted by [serue](#) on Tue, 17 Jun 2008 22:31:22 GMT  
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Quoting [sukadev@us.ibm.com](mailto:sukadev@us.ibm.com) ([sukadev@us.ibm.com](mailto:sukadev@us.ibm.com)):

>

> >From 0f5b3ea20238e0704a71252a3d495ca0db61e1dc Mon Sep 17 00:00:00 2001

> From: Sukadev Bhattiprolu <sukadev@linux.vnet.ibm.com>  
 > Date: Sat, 14 Jun 2008 11:45:00 -0700  
 > Subject: [RFC][PATCH] Read/print contents of fifo.  
 >  
 > To test that checkpoint/restart of pipes is working, read  
 > one byte at a time from the pipe and write to stdout.  
 >  
 > After checkpoint, both the checkpointed application and the  
 > restarted application should continue reading from the checkpoint.  
 >  
 > The '-e' option to the program, tests with an empty pipe.  
 >  
 > Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>

Thanks, will apply to the git tree tonight.

-serge

```
> ---
> tests/pipe.c | 32 +++++++++++++++++++++++++++++++++++++
> 1 files changed, 28 insertions(+), 4 deletions(-)
>
> diff --git a/tests/pipe.c b/tests/pipe.c
> index cc3cdfd..0812cb3 100644
> --- a/tests/pipe.c
> +++ b/tests/pipe.c
> @@ -3,25 +3,49 @@
> #include <unistd.h>
> #include <stdlib.h>
> #include <string.h>
> +#include <errno.h>
> +#include <sys/fcntl.h>
>
> -int main()
> +int main(int argc, char *argv[])
> {
>   int i = 0;
>   int rc;
>   int fds[2];
>   int c;
>   int empty;
>   char *buf = "abcdefghijklmnopqrstuvwxyz";
>
>   + /*
>   +  * -e: test with an empty pipe
>   +  */
>   + empty = 0;
>   + if (argc > 1 && strcmp(argv[1], "-e") == 0)
```

```

> + empty = 1;
> +
> if (pipe(fds) < 0) {
>     perror("pipe()");
>     exit(1);
> }
>
> - write(fds[1], buf, strlen(buf));
> + if (!empty)
> + write(fds[1], buf, strlen(buf));
>
> + if (fcntl(fds[0], F_SETFL, O_NONBLOCK) < 0) {
> +     perror("fcntl()");
> +     exit(1);
> + }
> printf("Running as %d\n", getpid());
> while (i<100) {
>     sleep(1);
> - if (i%5 == 0)
> -     printf("i is %d (pid %d)\n", i, getpid());
> + if (i%5 == 0) {
> +     c = errno = 0;
> +     rc = read(fds[0], &c, 1);
> +     if (rc != 1) {
> +         perror("read() failed");
> +     }
> +     printf("i is %d (pid %d), c is %c\n", i, getpid(), c);
> + }
>     i++;
> }
> }
> --
> 1.5.2.5

```

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