
Subject: [PATCH 2/4]: Test3: continous read/write to pipe
Posted by [Sukadev Bhattiprolu](#) on Tue, 24 Jun 2008 03:33:25 GMT
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>From ade1b719f7d9968e0f934daf736ca1746cb6747d Mon Sep 17 00:00:00 2001
From: Sukadev Bhattiprolu <sukadev@linux.vnet.ibm.com>
Date: Sun, 22 Jun 2008 22:26:18 -0700
Subject: [PATCH] Testcase 3: continous read/write to pipe

tests/pipe.c | 82 ++
1 files changed, 81 insertions(+), 1 deletions(-)

diff --git a/tests/pipe.c b/tests/pipe.c
index 76be6cc..c81ac2a 100644

--- a/tests/pipe.c

+++ b/tests/pipe.c

@@ -6,6 +6,8 @@

#include <string.h>

#include <errno.h>

+#define min(a, b) ((a) < (b) ? (a) : (b))

+static char *temp_file;

char *test_descriptions[] = {

NULL,

"Test with an empty pipe",

@@ -18,7 +20,7 @@ char *test_descriptions[] = {

"Test with all-fds in use for pipes",

};

-static int last_num = 2;

+static int last_num = 3;

usage(char *argv[])

{

int i;

@@ -82,12 +84,89 @@ int test2()

}

}

+int read_write_pipe()

{

+ int i = 0;

+ int rc;

+ int fds[2];

+ int fd1, fd2;

+ int c;

+ char *wbufp;

+ char wbuf[256];

```

+ char rbuf[256];
+ char *rbufp;
+
+ rbufp = &rbuf[0];
+ wbufp = &wbuf[0];
+
+ strcpy(wbufp, "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ");
+ memset(rbufp, '\0', sizeof(rbuf));
+
+ if (pipe(fds) < 0) {
+   perror("pipe()");
+   exit(1);
+ }
+ printf("fds[0] %d, fds[1] %d\n", fds[0], fds[1]);
+
+ if (fcntl(fds[0], F_SETFL, O_NONBLOCK) < 0) {
+   perror("fcntl()");
+   exit(1);
+ }
+
+ printf("Running as %d\n", getpid());
+ for (i = 0; i < 50; i++) {
+   sleep(1);
+   if (i%2 == 0) {
+     c = errno = 0;
+     rc = read(fds[0], rbufp, 3);
+
+     if (rc < 0)
+       perror("read() failed");
+     else {
+       printf("i is %d (pid %d), rbufp %p read %s\n",
+         i, getpid(), rbufp, rbufp);
+       rbufp += rc;
+     }
+
+     if (*wbufp == '\0')
+       continue;
+
+     errno = 0;
+     rc = write(fds[1], wbufp, min(3, strlen(wbufp)));
+     if (rc < 0) {
+       perror("write() to pipe");
+     } else {
+       if (rc != 3) {
+         printf("Wrote %d of 3 bytes, "
+           "error %d\n", rc, errno);
+       }
+       wbufp += rc;
+     }
+   }
+ }

```

```

+ }
+ }
+ }
+
+ if (strncmp(wbuf, rbuf, strlen(wbufp))) {
+   printf("Wrote: %s\n", wbuf);
+   printf("Read : %s\n", rbuf);
+   printf("Test FAILED\n");
+ } else {
+   printf("Test passed\n");
+ }
+}
+
+static void test3()
+{
+ read_write_pipe();
+}
+
+ int
+ main(int argc, char *argv[])
+ {
+   int c;
+   int tc_num;

+ temp_file = argv[0];
+
+   while((c = getopt(argc, argv, "t:")) != EOF) {
+     switch(c) {
+       case 't':
@@ -102,6 +181,7 @@ main(int argc, char *argv[])
+     switch(tc_num) {
+       case 1: test1(); break;
+       case 2: test2(); break;
+ case 3: test3(); break;
+     default:
+       printf("Unsupported test case %d\n", tc_num);
+       usage(argv);
+
+ --

```

1.5.2.5

Containers mailing list

Containers@lists.linux-foundation.org

<https://lists.linux-foundation.org/mailman/listinfo/containers>
