

Ruby - Bug #9617

Windows7 issue with Kernel.spawn close\_others => false

03/10/2014 11:02 AM - lionel\_perrin (Lionel PERRIN)

<b>Status:</b>	Rejected	
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Target version:</b>		
<b>ruby -v:</b>	ruby 2.0.0p451 (2014-02-24) [i386-mingw32]	<b>Backport:</b> 1.9.3: UNKNOWN, 2.0.0: UNKNOWN, 2.1: UNKNOWN

Description

I faced an issue while trying to inherit a file or pipe handle from a master process to its child on windows 7.

I tried this implementation:

- master.rb:

```
rd, wr = IO.pipe
puts "Pipe opened: #{rd.fileno} <= #{wr.fileno}"
cmd = "ruby child.rb #{rd.fileno}"
pid = Kernel.spawn cmd, :close_others => false
wr.write "Hello World\n"
Process.wait pid
```

- child.rb:

```
puts "Child:Start #{ARGV}"
rd = IO.new(ARGV[0].to_i, mode: "r")
puts rd.read
```

On windows I get the following output while it works fine on linux.

```
Pipe opened: 3 <= 4
Child:Start ["3"]
child.rb:2:in `initialize': Bad file descriptor (Errno::EBADF)
    from child.rb:2:in `new'
    from child.rb:2:in `<main>'
```

Note: the same test with the fileno of a file opened from master.rb lead to the same exception in child.rb

History

#1 - 03/10/2014 11:19 PM - usa (Usaku NAKAMURA)

- Status changed from Open to Rejected

It is not supported on mswin/mingw to pass file descriptors (except 0,1,2) to other processes. So, it is expected behavior.

#2 - 03/11/2014 11:14 AM - lionel\_perrin (Lionel PERRIN)

Thanks for the answer.

Two last questions:

- Is there a technical reason why it is not supported ?

I've looked at the ruby source code. From my understanding, the CreateProcess call is made with inheritHandles set to true, which should make possible to transfer handles. Nevertheless, CreatePipe call is made in a way that forbid this handle to be inherited. Wouldn't it be possible to change this ?

- Wouldn't it be worth updating the documentation ? It is not specified that the Kernel.spawn command is limited on windows.

#3 - 03/11/2014 11:43 AM - usa (Usaku NAKAMURA)

Lionel PERRIN wrote:

- Is there a technical reason why it is not supported ?

I've looked at the ruby source code. From my understanding, the `CreateProcess` call is made with `inheritHandles` set to `true`, which should make possible to transfer handles. Nevertheless, `CreatePipe` call is made in a way that forbid this handle to be inherited. Wouldn't it be possible to change this ?

We do not have a way how specify which handle corresponds to which file descriptor to a child process.  
First of all, we do not know whether a child process treats file descriptors or not.

- Wouldn't it be worth updating the documentation ? It is not specified that the `Kernel.spawn` command is limited on windows.

I think so, too.

**#4 - 03/15/2014 02:41 PM - akr (Akira Tanaka)**

Documentation patch is welcome.