

Ruby - Bug #6629

[PATCH] io.c: avoid rb_thread_wait_fd() if we may call rb_io_wait_readable()

06/23/2012 12:04 PM - normalperson (Eric Wong)

Status:	Closed	Backport:
Priority:	Normal	
Assignee:	kosaki (Motohiro KOSAKI)	
Target version:		
ruby -v:	ruby 2.0.0dev (2012-06-23 trunk 36192) [x86_64-linux]	
Description		
<p>Blindly calling <code>rb_thread_wait_fd()</code> is an extra, unnecessary system call in some cases. Since we already call <code>rb_io_wait_readable()</code> when encountering <code>EAGAIN</code>, there is no user-visible change in behavior and a small potential for speedup by avoiding a system call (especially on regular filesystem that should never return <code>EAGAIN/EINTR</code>).</p> <p>This also helps avoid triggering a bugs on some buggy (ancient) Linux kernels. I encountered this issue[1] on a CentOS 5.7 machine running the 2.6.18-274.7.1.el5 kernel. Upgrading to the 2.6.18-308.8.2.el5 kernel fixes the issue.</p> <p>This Linux kernel regression I encountered was introduced with commit 786d7e1612f0b0adb6046f19b906609e4fe8b1ba (Jul 15 2007) and fixed in commit dd23aae4f5edf4e1dbd8f7f8013a754ba3253f48 (Sep 11 2007) I've verified the dd23aae4f5edf4e1dbd8f7f8013a754ba3253f48 change is present in the 2.6.18-308.8.2.el5 (working) kernel but not in the 2.6.18-274.7.1.el5 (broken) kernel.</p> <p>I realize this is a 5 year-old (fixed) bug in Linux, but I also believe Ruby is is wrong to call <code>select()/ppoll()</code> before encountering <code>EAGAIN</code>.</p> <p>[1] http://mid.gmane.org/20120621004402.GA7450@dcvr.yhbt.net</p> <p>Note: I left <code>IO#sysread</code> unchanged (with just a comment) since removing <code>rb_thread_wait_fd()</code> there would change semantics (as would handling <code>EAGAIN</code> explicitly).</p>		

Associated revisions

Revision 3df2fc2da8ee34ad0b923e42b3fcdc8daf391370 - 09/09/2012 07:20 AM - kosaki (Motohiro KOSAKI)

- `io.c` (`io_bufread`): removed unnecessary `rb_thread_wait_fd()`. Patch by Eric Wong. [Bug #6629] [ruby-core:45789]
- `io.c` (`rb_io_sysread`): ditto.
- `io.c` (`copy_stream_fallback_body`): ditto.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@36931 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 3df2fc2d - 09/09/2012 07:20 AM - kosaki (Motohiro KOSAKI)

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History

#1 - 07/01/2012 10:29 AM - mame (Yusuke Endoh)

- Status changed from Open to Assigned
- Assignee set to kosaki (Motohiro KOSAKI)

#2 - 09/09/2012 04:20 PM - kosaki (Motohiro KOSAKI)

- Status changed from Assigned to Closed
- % Done changed from 0 to 100

This issue was solved with changeset r36931.
Eric, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

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- io.c (io_bufread): removed unnecessary rb_thread_wait_fd().
Patch by Eric Wong. [Bug #6629] [ruby-core:45789]
 - io.c (rb_io_sysread): ditto.
 - io.c (copy_stream_fallback_body): ditto.

Files

0001-io.c-avoid-rb_thread_wait_fd-if-we-may-call-rb_io_wa.patch	2.71 KB	06/23/2012	normalperson (Eric Wong)
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