Ruby master - Bug #14929

[PATCH] thread.c (do_select): fix leak on exception

07/21/2018 03:04 AM - normalperson (Eric Wong)

Status: Closed
Priority: Normal
Assignee:
Target version:
Backport: 2.3: REQUIRED, 2.4: DONE, 2.5: DONE

thread.c (do_select): fix leak on exception

When do_select is interrupted and raise happens from RUBY_VM_CHECK_INTS_BLOCKING, the original FD sets we copied do not get freed, leading to a memory leak. Wrap up all the FD sets into a Ruby object to ensure the GC can release an allocations made for rb_fdset_t.

This leak existed since Ruby 2.0.0 (r36430)

I found this bug because I was tracking down a problem while working on timer-thread elimination.

Associated revisions

Revision 8d0f5f1b - 07/21/2018 03:26 AM - normal
thread.c (do_select): fix leak on exception

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[Bug #14929]
git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@64007 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 64007 - 07/21/2018 03:26 AM - normalperson (Eric Wong)
thread.c (do_select): fix leak on exception

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Revision 64007 - 07/21/2018 03:26 AM - normal
thread.c (do_select): fix leak on exception

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This leak existed since Ruby 2.0.0 (r36430)
Revision 64019 - 07/23/2018 06:08 AM - ko1 (Koichi Sasada)
increase timeout seconds.

- test/ruby/test_io.rb (test_select_leak): increase timeout seconds to pass this test on a high-load machine.

Revision 64020 - 07/23/2018 06:22 AM - usa (Usaku NAKAMURA)
60 sec is not enough at all

Revision 95abe79e - 08/27/2018 02:08 PM - usa (Usaku NAKAMURA)
merge revision(s) 64007,64019,64020: [Backport #14929]
thread.c (do_select): fix leak on exception
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[Bug #14929]

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Revision 64561 - 08/27/2018 02:08 PM - usa (Usaku NAKAMURA)
merge revision(s) 64007,64019,64020: [Backport #14929]
thread.c (do_select): fix leak on exception
When do_select is interrupted and raise happens from
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[Bug #14929]

increase timeout seconds.
* test/ruby/test_io.rb (test_select_leak): increase timeout seconds
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Revision c91b7154 - 09/01/2018 05:40 AM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 64007,64019,64020: [Backport #14929]
thread.c (do_select): fix leak on exception
When do_select is interrupted and raise happens from
RUBY_VM_CHECK_INTS_BLOCKING, the original FD sets we copied
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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_5@64605 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 64605 - 09/01/2018 05:40 AM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 64007,64019,64020: [Backport #14929]

thread.c (do_select): fix leak on exception

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[Bug #14929]

increase timeout seconds.
* test/ruby/test_io.rb (test_select_leak): increase timeout seconds
to pass this test on a high-load machine.

60 sec is not enough at all

History

#1 - 07/21/2018 03:26 AM - normalperson (Eric Wong)
- Status changed from Open to Closed

Applied in changeset trunk|r64007.

thread.c (do_select): fix leak on exception

When do_select is interrupted and raise happens from
RUBY_VM_CHECK_INTS_BLOCKING, the original FD sets we copied
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allocations made for rb_fdset_t.

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[Bug #14929]

#2 - 08/27/2018 02:08 PM - usa (Usaku NAKAMURA)
- Backport changed from 2.3: REQUIRED, 2.4: REQUIRED, 2.5: REQUIRED to 2.3: REQUIRED, 2.4: DONE, 2.5: REQUIRED

ruby_2_4 r64561 merged revision(s) 64007,64019,64020.

#3 - 09/01/2018 05:40 AM - nagachika (Tomoyuki Chikanaga)
- Backport changed from 2.3: REQUIRED, 2.4: DONE, 2.5: REQUIRED to 2.3: REQUIRED, 2.4: DONE, 2.5: DONE

ruby_2_5 r64605 merged revision(s) 64007,64019,64020.

#4 - 11/12/2018 06:14 PM - jaruga (Jun Aruga)
Could you backport below commits for test/ruby/test_io.rb#test_select_leak from ruby_2_5 or trunk to ruby_2_4 branch?

ruby_2_5 branch

$ git diff ruby_2_4..ruby_2_5 test/ruby/test_io.rb
...

03/17/2020
trunk branch

$ git diff ruby_2.4..trunk test/ruby/test_io.rb
... def test_select_leak
-     assert_no_memory_leak([], <<"end;", <<"end;", rss: true, timeout: 60)
+     # avoid malloc arena explosion from glibc and jemalloc:
         th.kill
         th.join
         end
     end;
     end
     end

I faced this issue when building ruby-2.4 on on Fedora multi archs environment.

I think that this also can fix on rubyci ruby_2.4 test.

Thank you!

Files

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<thead>
<tr>
<th>File</th>
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<th>Author</th>
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<tr>
<td>0001-thread.c-do_select-fix-leak-on-exception.patch</td>
<td>3.87 KB</td>
<td>07/21/2018</td>
<td>normalperson (Eric Wong)</td>
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