Ruby master - Bug #18497
FiberでProcess.daemonするとSegmentation faultが起こる
01/19/2022 08:11 AM - sevenc-nanashi (Nanashi. @sevenc-nanashi)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td></td>
</tr>
<tr>
<td>Target version:</td>
<td>ruby -v: ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [aarch64-linux]</td>
</tr>
<tr>
<td>Backport:</td>
<td>2.6: REQUIRED, 2.7: REQUIRED, 3.0: DONE, 3.1: DONE</td>
</tr>
</tbody>
</table>

Description
ruby -e 'Fiber.new { Process.daemon true, true }.resume'

OCIのUbuntu(ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [aarch64-linux])で確認出来ましたが、WSL(ruby 3.1.0p0 (2021-12-25 revision fb4df44d16) [x86_64-linux])では確認出来ませんでした。

Associated revisions
Revision d650b176 - 01/19/2022 10:57 AM - nobu (Nobuyoshi Nakada)
br_fiber_terminate must not return [Bug #18497]

In a forked process from a fiber, the fiber becomes the only fiber, `fiber_switch` does nothing as there is no other fibers, `rb_fiber_terminate` does not terminate the fiber. In that case, reaches the end of `fiber_entry` finally, which is declared as "COROUTINE" and should never return.

Revision 1c426ddb - 01/31/2022 10:22 AM - naruse (Yui NARUSE)
merge revision(s) 5c7af72304d0ad33cd3f121b24a4bc44e8acd5b2c,d650b1768d49c2ce8e6a87039861154e93d4621: [Backport #18497]

Assuming EXIT_SUCCESS equals 0 is not portable

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Revision 6a8c1664 - 03/13/2022 02:47 AM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 5c7af72304d0ad33cd3f121b24a4bc44e8acd5b2c,d650b1768d49c2ce8e6a87039861154e93d4621: [Backport #18497]

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rb_fiber_terminate must not return [Bug #18497]

In a forked process from a fiber, the fiber becomes the only fiber, fiber_switch does nothing as there is no other fibers, rb_fiber_terminate does not terminate the fiber. In that case, reaches the end of fiber_entry finally, which is declared as "COROUTINE" and should never return.

In 2.7 or earlier, bf3b2a43741e or the following patch is also needed.

diff --git a/cont.c b/cont.c
index 7f971a9e9d5..50403b8258d 100644
--- a/cont.c
+++ b/cont.c
@@ -1930,7 +1930,7 @@
     } }
 static inline rb_fiber_t*
 -return_fiber(void)
+return_fiber(bool terminate)
 {
     rb_fiber_t *fiber = fiber_current();
     rb_fiber_t *prev = fiber->prev;
@@ -1941,7 +1941,7 @@
     return_fiber(void)
 VM_ASSERT(root_fiber != NULL);
-    if (root_fiber == fiber) {
+    if (!terminate && root_fiber == fiber) {
         rb_raise(rb_eFiberError, "can't yield from root fiber");
     }
     return root_fiber;
@@ -2087,7 +2087,7 @@
     rb_fiber_terminate(rb_fiber_t *fiber, int need_interrupt)
     fiber->cont.machine.stack = NULL;
     fiber->cont.machine.stack_size = 0;
-    next_fiber = return_fiber();
+    next_fiber = return_fiber(true);
     if (need_interrupt) RUBY_VM_SET_INTERRUPT(&next_fiber->cont.saved_ec);
     fiber_switch(next_fiber, 1, &value, 0, RB_NO_KEYWORDS);
 } }
@@ -2121,13 +2121,13 @@
 VALUE
 rb_fiber_yield_kw(VALUE fiber_value, int argc, const VALUE *argv)
 VALUE
 rb_fiber_yield(int argc, const VALUE *argv)
```c
{  return fiber_switch(return_fiber(), argc, argv, 0, RB_NO_KEYWORDS);
+ return fiber_switch(return_fiber(false), argc, argv, 0, RB_NO_KEYWORDS);
}

void

#4 - 01/31/2022 10:22 AM - naruse (Yui NARUSE)
- Backport changed from 2.6: REQUIRED, 2.7: REQUIRED, 3.0: REQUIRED, 3.1: REQUIRED to 2.6: REQUIRED, 2.7: REQUIRED, 3.0: REQUIRED, 3.1: DONE

ruby_3_1 e426ddb25e2cccb169720e4f9894605596fe594d merged revision(s)
5c7af72304d0ad33cd3f21b244ac44e8ac5b2c,d650b17686d49c2ce8e6a87039861154e93d4621.

#5 - 03/13/2022 03:12 AM - nagachika (Tomoyuki Chikanaga)
- Backport changed from 2.6: REQUIRED, 2.7: REQUIRED, 3.0: REQUIRED, 3.1: DONE to 2.6: REQUIRED, 2.7: REQUIRED, 3.0: DONE, 3.1: DONE

ruby_3_0 e8c166498b856ca1dcb5324f0b00e5fc138f1af3 merged revision(s)
5c7af72304d0ad33cd3f21b244ac44e8ac5b2c,d650b17686d49c2ce8e6a87039861154e93d4621.

Files

<table>
<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>sf.log</td>
<td>17 KB</td>
<td>01/19/2022</td>
<td>sevenc-nanashi (Nanashi. @sevenc-nanashi)</td>
</tr>
</tbody>
</table>
```

03/14/2022