Ruby master - Feature #4568

[PATCH] file.c (rb_group_member): kill 256K of stack usage

04/11/2011 04:01 PM - normalperson (Eric Wong)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
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<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>kosaki (Motohiro KOSAKI)</td>
</tr>
<tr>
<td>Target version:</td>
<td>2.0.0</td>
</tr>
</tbody>
</table>

**Description**

```
=end
It was using 256K stack on my x86_64 machine.

Found with scripts/checkstack.pl in the Linux kernel source:

objdump -D ./ruby | ~/linux-2.6/scripts/checkstack.pl x86_64

Also pushed to my repo: git pull git://bogomips.org/ruby stack-reduce

=end
```

**History**

### #1 - 04/11/2011 05:23 PM - normalperson (Eric Wong)

```
=begin
Lowering RUBY_STACK_MIN_LIMIT to 64KB across the board in
thread_pthread.c seems to work fine for check, test-rubyspec,
benchmark-each.

No real code, though, and I also don't know what outside C extensions
do, but 64KB is the PTHREAD_STACK_MIN for my platform (and I've always
felt it was too high).

diff --git a/thread_pthread.c b/thread_pthread.c
index ad6f716..a015873 100644
--- a/thread_pthread.c
+++ b/thread_pthread.c
@@ -630,11 +630,7 @@ use_cached_thread(rb_thread_t *th)

@end
```

### #2 - 04/11/2011 09:19 PM - kosaki (Motohiro KOSAKI)

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

=end
```

### #3 - 04/12/2011 08:18 PM - normalperson (Eric Wong)

```
=begin
Lowering RUBY_STACK_MIN_LIMIT to 64KB across the board in
thread_pthread.c seems to work fine for check, test-rubyspec,
benchmark-each.

=end
```
No real code, though, and I also don't know what outside C extensions do, but 64KB is the PTHREAD_STACK_MIN for my platform (and I've always felt it was too high).

diff --git a/thread_pthread.c b/thread_pthread.c
index ad6f716..a015873 100644
--- a/thread_pthread.c
+++ b/thread_pthread.c
@@ -630,11 +630,7 @@ use_cached_thread(rb_thread_t *th)
 }

enum {
-#ifdef SYMBIAN32
   RUBY_STACK_MIN_LIMIT = 64 * 1024, /* 64KB: Let's be slightly more frugal on mobile platform */
-#else
   RUBY_STACK_MIN_LIMIT = 512 * 1024, /* 512KB */
-#endif
   RUBY_STACK_MIN_LIMIT = 64 * 1024, /* 64KB */
   RUBY_STACK_SPACE_LIMIT = 1024 * 1024);

Eric Wong
=end

#4 - 04/13/2011 08:45 AM - normalperson (Eric Wong)

=end
Eric Wong normalperson@yhbt.net wrote:

   Lowering RUBY_STACK_MIN_LIMIT to 64KB across the board in thread_pthread.c seems to work fine for check, test-rubyspec, benchmark-each.

   No real code, though, and I also don't know what outside C extensions do, but 64KB is the PTHREAD_STACK_MIN for my platform (and I've always felt it was too high).

I was wrong about 64KB on my system 16KB is the minimum with NPTL :x

The lowest successful stack size I've been able to run is 48K, I get stack corruption and GC failures with 44K and lower.

   I've also run my Rainbows! web server[1] integration/torture test suite with several threaded options and everything passed with 48K and didn't notice ill effects. 44K seemed fine, too, I think, but 32K failed Rainbows! tests miserably.

   To be on the safe side with existing code/extensions and maybe some overaggressive alloca() calls, I think 64KB is reasonable.


Eric Wong
=end

Files

<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
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<td>0001-file.c-rb_group_member-kill-256K-of-stack-usage.patch</td>
<td>1.21 KB</td>
<td>04/11/2011</td>
<td>normalperson (Eric Wong)</td>
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