Ruby master - Bug #1152

profiler.rb is not concurrent-execution threadsafe

02/13/2009 07:54 AM - headius (Charles Nutter)

Status: Closed
Priority: Normal
Assignee: nobu (Nobuyoshi Nakada)
Target version: 2.0.0
ruby -v: all versions 1.8.6 and up

Backport:

Description

=end

The library profiler.rb uses class variables to store data without wrapping them in mutexes. On current C Ruby, this may only rarely cause a problem, but as more and more code is allowed to run in parallel it's going to lead to issues. If I or other JRuby community members have a chance, we'll try to make it thread-safe, but I wanted to file this issue to ensure it's out there.

The library is also largely unchanged in 1.9.1.

See [http://jira.codehaus.org/browse/JRUBY-2133](http://jira.codehaus.org/browse/JRUBY-2133) for the (admittedly sparse) JRuby issue.

=end

Associated revisions

Revision 80b55686 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

- git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@38576 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Revision 38576 - 12/23/2012 08:57 AM - nobu (Nobuyoshi Nakada)
profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

History

08/07/2021
Sample patch attached for discussion. There are style and best practice issues with this patch due to my lack of ruby experience. Please forgive and be so kind as to suggest improvements.

It is intended to highlight some of the areas that must be considered when making the change to provide thread-safe profiling.

The patch alters the code to make the capture of the data thread-safe AFAICT. There may be some issues with the data fields / calculations. I wasn't completely clear what each field in the array was supposed to be storing. The main issue unresolved by this patch is how best to present the information.

I've opted for showing information per-thread and a summary as well.

- Should there be a version number outputted, in case downstream tools are doing something with this information?
- Any comments on how the information is being presented??
- Should profiling be configurable, so that it may not show output per thread, etc.

Whoops. Wrong patch attached. Updated version.

I'm not the maintainer of profiler.rb. According to git blame, it seems to be written by Matz and ocean, so I assign this ticket to Matz.

I take it.

nobu, could you check it?
This issue was solved with changeset r38576.
Charles, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

profiler.rb: concurrent-execution

- lib/profiler.rb (Profiler__::PROFILE_PROC, print_profile): store profile data per threads for concurrent-execution. [ruby-core:22046] [Bug #1152]

Files

<table>
<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>1152.patch</td>
<td>2.13 KB</td>
<td>03/16/2009</td>
<td>jabley (James Abley)</td>
</tr>
<tr>
<td>1152-2009-03-09.patch</td>
<td>3.58 KB</td>
<td>03/16/2009</td>
<td>jabley (James Abley)</td>
</tr>
</tbody>
</table>