

Ruby master - Misc #9832

better concurrency in threads

05/12/2014 12:31 PM - ariveira (Alexandre Riveira)

Status:	Open
Priority:	Normal
Assignee:	
Description	
<p>My application runs on top of rainbows using workers with multi-threaded. I realized that in ruby running on linux (my kernel config is slackware, debian not work) not equal to distribute the processing threads. To test this I created the file that is attached test_thread_schedule.rb The more the final test result is between 20/21 seconds means he has distributed processing equally So when the road test with ruby 1.9.2 on linux it does not perform. This improved in ruby 1.9.3 and further in ruby 2.0. But it still is not the ideal</p> <p>My tests: ruby 1.9.2p320 => not work ruby 1.9.3p545 => 68 secs ruby 2.0.0p451 => 29 secs ruby 2.1.2p95 => 29 secs</p> <p>ruby without GVL workfine rubinius 2.2.6 => 21 secs jruby 1.7.12 => 21 secs</p> <p>But if I apply taskset (uncomment line in the test file taskset -c -p 2 #{Process.pid}) the results are noticeably better especially in ruby 1.9.2</p> <p>ruby 1.9.2p320 => 21 secs ruby 1.9.3p545 => 30 secs ruby 2.0.0p451 => 23 secs ruby 2.1.2p95 => 23 secs</p> <p>This reflects directly in the application, if one thread is using 100% cpu with rainbows application begins to degrade coming to answer the other threads 7-16 seconds based time passes. Taskset already applied it decreases considerably. The same test applied cougar, gets to be virtually no impact, but since taskset is applied to the process, follow my code</p> <p>rainbows:</p> <pre>before_fork do server, worker taskset -c -p 2 #{Process.pid}</pre> <p>puma:</p> <pre>on_worker_boot do index taskset -c -p 2 #{Process.pid}</pre> <p>Could internally ruby linux treat in a special way so that the behavior of threads is improved ??? If this behavior can not be improved through a new feature in ruby I am grateful for any help for fixing the process taskset on a particular processor which is not ideal.</p>	

History

#1 - 05/12/2014 12:33 PM - ariveira (Alexandre Riveira)

cougar => puma

Files

test_thread_schedule.rb	955 Bytes	05/12/2014	ariveira (Alexandre Riveira)
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