

Ruby master - Bug #14191

Coverage decreased between 2.4.3 and 2.5.0rc1

12/15/2017 06:52 PM - kddeisz (Kevin Deisz)

Status:	Closed	
Priority:	Normal	
Assignee:	mame (Yusuke Endoh)	
Target version:	2.5	
ruby -v:	2.5.0rc1	Backport: 2.3: UNKNOWN, 2.4: UNKNOWN
Description		
<p>Just ran the test suite on my Rails app on the new rc and noticed that the coverage dropped by a full 3%. After some investigation discovered a lot of lines aren't being reported as covered anymore even though they clearly are. Here are all of the instances that I found that don't report coverage when they should:</p>		
<pre># test.rb require 'coverage' Coverage.start require_relative './file.rb' p Coverage.result # file.rb FOO = [{ foo: 'bar' }, { bar: 'baz' }] 'some string'.split .map(&:length) some = 'value' Struct.new(:foo, :bar).new class Test def foo(bar) { foo: bar } end end Test.new.foo(Object.new)</pre>		
<p>In this case we're not getting coverage on the constant assignment, on the second method of the string manipulation, on the multi-line assignment, on the instantiation of the struct, or on the return value of the Test#foo method.</p>		

Associated revisions

Revision 2e24a66b - 12/18/2017 02:44 AM - mame (Yusuke Endoh)

iseq.c (finish_iseq_build): fix coverage leakage [Bug #14191]

Before this change, coverage.so had failed to measure some multiple-line code fragments. This is because removing trace instructions (#14104) changed TracePoint's lineno (new lineno), and coverage counter array was based on old lineno.

This change initializes coverage counter array based on new lineno.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@61313 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

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Revision c08e8886 - 12/20/2017 04:24 AM - mame (Yusuke Endoh)

compile.c: add a RUBY_EVENT_COVERAGE_LINE event for line coverage

2.5's line coverage measurement was about two times slower than 2.4 because of two reasons; (1) vm_trace uses rb_iseq_event_flags (which takes O(n) currently where n is the length of iseq) to get an event type, and (2) RUBY_EVENT_LINE uses setjmp to call an event hook.

This change adds a special event for line coverage, RUBY_EVENT_COVERAGE_LINE, and adds tracecoverage instructions where the event occurs in iseq.

tracecoverage instruction calls an event hook without vm_trace.

And, RUBY_EVENT_COVERAGE_LINE is an internal event which does not use setjmp.

This change also cancels lineno change due to the deletion of trace instructions [Feature #14104]. So fixes [Bug #14191].

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@61350 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 61350 - 12/20/2017 04:24 AM - mame (Yusuke Endoh)

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History

#1 - 12/15/2017 10:59 PM - mame (Yusuke Endoh)

- Target version set to 2.5
- Assignee set to mame (Yusuke Endoh)
- Status changed from Open to Assigned

Thank you for the report!

I found that [#14104](#) changed TracePoint's lineno, which broke coverage.so. I'll fix it with ko1.

#2 - 12/18/2017 02:44 AM - mame (Yusuke Endoh)

- Status changed from Assigned to Closed

Applied in changeset [trunk|r61313](#).

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#3 - 12/18/2017 02:57 AM - mame (Yusuke Endoh)

I have just fixed the issue. I'd appreciate if you could try r61313 and tell me if the coverage is measured correctly.

Your report was *really* helpful. Thank you very much!

#4 - 12/20/2017 04:35 AM - mame (Yusuke Endoh)

Sangyong Sim told me that 2.5's line coverage measurement was slower than 2.4 because of some reasons. I talked with ko1, and decided to revert the changes of line coverage (2.4 and 2.5 use a special event and special instruction for line coverage). I committed r61350. This change also means that line numbers are back to 2.4. In short, everything about 2.5's line coverage should be the same as 2.4.