ifuncに渡したブロックが共有される

06/16/2013 03:33 AM - ktsj (Kazuki Tsujimoto)

Status: Closed
Priority: Normal
Assignee: usa (Usaku NAKAMURA)

Description
=begin
ifunc(rb_iterateでbl_procとして渡したもの)をブロック付きで呼び出すと、
渡したブロックがifuncのフレーム内に保存されるようになっていますが(r29335)
2072 vm_yield_with_cfunc(rb_thread_t *th, const rb_block_t *block,
...
2107     if (blockargptr) {
2108         VM_CF_LEP(cfp)[0] = VM_ENVVAL_BLOCK_PTR(blockargptr);
2109     }
これによりメソッドに渡したブロックが次回のメソッド呼び出し時にもそのままフレームに残り続けて
共有されてしまうことがあります。#8341でMethod#to_procの件が報告されていますが、
Symbol#to_procなどでも同様です。
c = Class.new do
  def foo
    if block_given?
      yield
    else
      puts "No block given."
    end
  end
end

o = c.new
f = :foo.to_proc
f.(o) { puts "Block given." }
#: Block given.
f.(o)
#: Block given.

特に明文化されていないですが、ifuncには渡されたブロックを参照するのにLEPが利用できず(PASS_PASSED_BLOCKなどが使えない)、
引数として渡されるblockargを使わなければならないという制約があるものと思っています。
(正確に言えば利用できないわけではなくて、RubyレベルでいうProc内でのblock_given?などと同等の動きになる)
現在フレームにブロックを保存するようしているのはこの制約を回避してifuncからrb_method_callなどを期待通りに呼び出すためですが、
ブロックを共有してしまうという弊害がある以上ブロックは引数で渡すという形に修正するのが妥当ではないでしょうか。
この考え方で作ったSymbol#to_procの修正パッチを添付します。(Method#to_procについては#8341に添付しています)
なお、今の公開APIには任意のProcオブジェクトをpassed_blockとしてメソッドを呼び出すための関数がなさそうなので
利便性のために追加したりしていますが、この辺りは議論が必要そうな気がします。
=end

Related issues:
Related to Backport193 - Backport #8341: block_given? (and the actual block) ...
Closed 04/28/2013

Revision b69699a0 - 06/17/2013 01:01 AM - nobu (Nobuyoshi Nakada)
test/ruby/test_symbol.rb: tests for [Bug #8531]
git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@41343 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 41343 - 06/17/2013 01:01 AM - nobu (Nobuyoshi Nakada)
test/ruby/test_symbol.rb: tests for [Bug #8531]
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Revision 41343 - 06/17/2013 01:01 AM - nobu (Nobuyoshi Nakada)
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Revision 62bd8db1 - 06/17/2013 12:47 PM - ktsj (Kazuki Tsujimoto)

- include/ruby/ruby.h, vm_eval.c (rb_funcall_with_block):
  new function to invoke a method with a block passed as an argument.

- string.c (sym_call): use the above function to avoid a block sharing. [ruby-dev:47438] [Bug #8531]

- vm_insnhelper.c (vm_yield_with_cfunc): don’t set block in the frame.

- test/ruby/test_symbol.rb (TestSymbol#test_block_given_to_proc):
  run related tests.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@41360 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 41360 - 06/17/2013 12:47 PM - ktsj (Kazuki Tsujimoto)

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Revision 258f4c46c - 06/18/2013 01:08 PM - nobu (Nobuyoshi Nakada)
test_symbol.rb: fix test
  ● test/ruby/test_symbol.rb (test_block_persist_between_calls): needs receiver object. [Bug #8531]

Revision 41386 - 06/18/2013 01:08 PM - nobu (Nobuyoshi Nakada)
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Revision fff67882 - 06/18/2013 06:40 PM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 41343,41360,41386: [Backport #8531]

  test/ruby/test_symbol.rb: tests for [Bug #8531]
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    in the frame.

  * test/ruby/test_symbol.rb (TestSymbol#test_block_given_to_proc):
    run related tests.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_0_0@41393 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision b20ecf49 - 06/26/2013 08:11 AM - usa (Usaku NAKAMURA)
merge revision(s) 41343,41360,41386: [Backport #8531]

test/ruby/test_symbol.rb: tests for [Bug #8531]
* include/ruby/ruby.h, vm_eval.c (rb_funcall_with_block):
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* vm_insnhelper.c (vm_yield_with_cfunc): don't set block
  in the frame.

* test/ruby/test_symbol.rb (TestSymbol#test_block_given_to_proc):
  run related tests.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_1_9_3@41653 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 41653 - 06/26/2013 08:11 AM - usa (Usaku NAKAMURA)

merge revision(s) 41343,41360,41386: [Backport #8531]

test/ruby/test_symbol.rb: tests for [Bug #8531]
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  new function to invoke a method with a block passed
  as an argument.

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  in the frame.

* test/ruby/test_symbol.rb (TestSymbol#test_block_given_to_proc):
  run related tests.

History

#1 - 06/17/2013 09:59 AM - nobu (Nobuyoshi Nakada)
- Assignee changed from ko1 (Koichi Sasada) to ktsj (Kazuki Tsujimoto)

#2 - 06/17/2013 10:01 AM - nobu (Nobuyoshi Nakada)
- Status changed from Assigned to Closed
- % Done changed from 0 to 100

This issue was solved with changeset r41343.
Kazuki, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

#3 - 06/17/2013 10:24 AM - nobu (Nobuyoshi Nakada)
- Status changed from Closed to Assigned
- % Done changed from 100 to 0

- Backport changed from 1.9.3: UNKNOWN, 2.0.0: UNKNOWN to 1.9.3: REQUIRED, 2.0.0: REQUIRED

#4 - 06/17/2013 09:47 PM - ktsj (Kazuki Tsujimoto)
- Status changed from Assigned to Closed
- % Done changed from 0 to 100

This issue was solved with changeset r41360.
Kazuki, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.
• include/ruby/ruby.h, vm_eval.c (rb_funcall_with_block):
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  run related tests.

#5 - 06/17/2013 09:51 PM - ktsj (Kazuki Tsujimoto)
  - Tracker changed from Bug to Backport
  - Project changed from Ruby master to Backport200
  - Status changed from Closed to Assigned
  - Assignee changed from ktsj (Kazuki Tsujimoto) to nagachika (Tomoyuki Chikanaga)
  - Target version deleted (2.1.0)

Please backport r41343, r41360.

#6 - 06/17/2013 10:25 PM - ktsj (Kazuki Tsujimoto)
  - なかださん
  - TestSymbol#test_block_persist_between_calls ですが、skipを外すとテストに失敗します。
  - テスト側のバグのように思うのですが、確認していただけないでしょうか。

#7 - 06/17/2013 11:10 PM - nagachika (Tomoyuki Chikanaga)
  - Tracker changed from Backport to Bug
  - Project changed from Backport200 to Ruby master
  - Assignee changed from nagachika (Tomoyuki Chikanaga) to nobu (Nobuyoshi Nakada)

#8 - 06/18/2013 10:08 PM - nobu (Nobuyoshi Nakada)
  - Status changed from Assigned to Closed

This issue was solved with changeset r41386.
Kazuki, thank you for reporting this issue. Your contribution to Ruby is greatly appreciated. May Ruby be with you.

test_symbol.rb: fix test
  • test/ruby/test_symbol.rb (test_block_persist_between_calls): needs receiver object. [Bug #8531]

#9 - 06/19/2013 02:50 AM - nagachika (Tomoyuki Chikanaga)
  - Tracker changed from Bug to Backport
  - Project changed from Ruby master to Backport200
  - Status changed from Closed to Assigned
  - Assignee changed from nobu (Nobuyoshi Nakada) to nagachika (Tomoyuki Chikanaga)

#10 - 06/19/2013 03:40 AM - nagachika (Tomoyuki Chikanaga)
  - Status changed from Assigned to Closed

This issue was solved with changeset r41393.
Kazuki, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

merge revision(s) 41343,41360,41386: [Backport #8531]

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  a block sharing. [ruby-dev:47438] [Bug #8531]

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  in the frame.

* test/ruby/test_symbol.rb (TestSymbol#test_block_given_to_proc):
  run related tests.

#11 - 06/19/2013 03:41 AM - nagachika (Tomoyuki Chikanaga)
- Project changed from Backport200 to Backport193
- Status changed from Closed to Assigned
- Assignee changed from nagachika (Tomoyuki Chikanaga) to usa (Usaku NAKAMURA)

#12 - 06/26/2013 05:11 PM - usa (Usaku NAKAMURA)
- Status changed from Assigned to Closed

This issue was solved with changeset r41653.
Kazuki, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

merge revision(s) 41343,41360,41386: [Backport #8531]

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Files
fix-ifunc-block.patch 2.8 KB 06/16/2013 ktsj (Kazuki Tsujimoto)