

Ruby - Bug #12705

yielding args to a lambda uses block/proc rather than lambda/method semantics

08/25/2016 05:48 PM - bughit (bug hit)

Status:	Closed	Backport: 2.2: REQUIRED, 2.3: REQUIRED, 2.4: DONE
Priority:	Normal	
Assignee:	nobu (Nobuyoshi Nakada)	
Target version:	2.5	
ruby -v:		
Description <pre>def yield_test yield 1, 2 yield [1, 2] end def foo(a, b) p a, b end method_lambda = method(:foo).to_proc normal_lambda = ->a, b{p a, b} yield_test(&normal_lambda) yield_test(&method_lambda)</pre> <p>the yield of [1, 2] to the method_lambda produces an argument error as you would expect but the same yield to the normal_lambda does not, the single array arg is splatted per block/proc semantics</p>		
Related issues: Related to Ruby - Bug #13391: wrong number of arguments error for Hash#map wh... Closed		

Associated revisions

Revision 88d667ee444948b8c3bccafaadc653da0a319146 - 12/26/2016 09:32 AM - nobu (Nobuyoshi Nakada)

[Bug #12705]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@57192 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 88d667ee - 12/26/2016 09:32 AM - nobu (Nobuyoshi Nakada)

[Bug #12705]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@57192 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 976becf7eb18aa1592c703ac4d86a2cf9dfa701e - 03/19/2017 01:11 AM - nobu (Nobuyoshi Nakada)

vm_args.c: arity check of lambda

- vm_eval.c (rb_yield_lambda): new function which yields an array to a proc and splat to a lambda. mainly for Enumerable only.
- vm_args.c (setup_parameters_complex): remove special lambda splatting for [Bug #9605]. [ruby-core:77065] [Bug #12705]
- vm_inshelper.c (vm_callee_setup_block_arg): ditto.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@58019 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 976becf7 - 03/19/2017 01:11 AM - nobu (Nobuyoshi Nakada)

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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@58019 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 539ab3056902c5946291433cb807ad7c5b8fea4c - 03/21/2017 02:04 PM - naruse (Yui NARUSE)

merge revision(s) 57192,57464,58016,58018,58019: [Backport #12705]

```
[Bug #12705]
add a ticket number.
```

```
test_lambda.rb: refine test
```

```
* test/ruby/test_lambda.rb (test_lambda_as_iterator): refine a
  test for the intention of the original report.
  [ruby-core:61340] [Bug #9605]
test_lambda.rb: remove duplicate tests
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* vm_args.c (setup_parameters_complex): remove special lambda
  splatting for [Bug #9605]. [ruby-core:77065] [Bug #12705]
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* vm_insnhelper.c (vm_callee_setup_block_arg): ditto.
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_4@58045 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 539ab305 - 03/21/2017 02:04 PM - naruse (Yui NARUSE)

merge revision(s) 57192,57464,58016,58018,58019: [Backport #12705]

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[Bug #12705]
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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_4@58045 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

History

#1 - 08/25/2016 06:06 PM - bughit (bug hit)

a related point is that lambda procs with the same arity (normal_lambda, method_lambda) should behave the same

#2 - 08/25/2016 06:10 PM - bughit (bug hit)

- Subject changed from yielding args to a lambda uses block/proc rather lambda/method semantics to yielding args to a lambda uses block/proc rather than lambda/method semantics

#3 - 10/11/2016 08:32 AM - shyouhei (Shyouhei Urabe)

- Status changed from Open to Assigned

- Assignee set to ko1 (Koichi Sasada)

This (stabby lambda not raising exception) is a bug that should be fixed.

#4 - 10/11/2016 08:41 AM - akr (Akira Tanaka)

lambda should be strict on number of arguments.
So, stabby lambda (and traditional lambda) should not expand
single array argument.

It works until ruby 2.2.
Ruby 2.2 introduce the bug.

```
% all-ruby -e '
def yield_test
  yield [1, 2]
end
normal_lambda = ->a, b{p [a, b] }
yield_test(&normal_lambda)
'
...
ruby-2.1.10      -e:5:in `block in <main>': wrong number of arguments (1 for 2) (ArgumentError)
                  from -e:3:in `yield_test'
                  from -e:6:in `<main>'
                  #<Process::Status: pid 30458 exit 1>
ruby-2.2.0-preview1 [1, 2]
ruby-2.2.0-preview2 [1, 2]
ruby-2.2.0-rc1      [1, 2]
ruby-2.2.0          [1, 2]
ruby-2.2.1          [1, 2]
ruby-2.2.2          [1, 2]
ruby-2.2.3          [1, 2]
ruby-2.2.4          [1, 2]
ruby-2.2.5          [1, 2]
ruby-2.3.0-preview1 [1, 2]
ruby-2.3.0-preview2 [1, 2]
ruby-2.3.0          [1, 2]
ruby-2.3.1          [1, 2]
ruby-2.4.0-preview1 [1, 2]
```

#5 - 10/12/2016 04:49 PM - bughit (bug hit)

please also take a look at Bug [#12706](#), it may be related, also has to do with how args are yielded to lambdas

#6 - 10/15/2016 10:37 AM - Eregon (Benoit Daloze)

This bug seems specific to yield, calling the lambda behaves as expected.
I added specs in ruby/spec to verify this behavior:
<https://github.com/ruby/spec/commit/c4cabcf37ac804ea127bd0216c0239e5f9045ec1>

The ruby_bug guard can be adjusted as soon as there is a minor release containing the fix for this bug.

#7 - 11/04/2016 08:33 AM - ko1 (Koichi Sasada)

This is working memo. Now I can't find out the solution.

- (1) auto splat for lambda with yield ary is allowed [Bug [#9605](#)]. So #4 is intentional change.
- (2) However, lambda generated by Method#to_proc is not allowed (reported by this ticket)
- (3) The reason of (2) is, MRI splat ary only for ISeq level proc (splat at vm_callee_setup_block_arg() for lambda, called by vm_invoke_iseq_block()), but bmcall() (specified by ifunc->func) doesn't care it.

Possible solution (just now I can make) is vm_invoke_ifunc_block() checks it, but not clean.
Fundamentally, the spec is not clean, so code should not be clean.

#8 - 12/26/2016 09:23 AM - naruse (Yui NARUSE)

- Backport changed from 2.1: UNKNOWN, 2.2: UNKNOWN, 2.3: UNKNOWN to 2.2: UNKNOWN, 2.3: REQUIRED, 2.4: REQUIRED

#9 - 12/26/2016 09:32 AM - nobu (Nobuyoshi Nakada)

- Status changed from Assigned to Closed

Applied in changeset r57192.

[Bug [#12705](#)]

#10 - 01/09/2017 03:32 AM - nobu (Nobuyoshi Nakada)

- Status changed from Closed to Assigned

#11 - 01/09/2017 03:52 AM - nobu (Nobuyoshi Nakada)

What's the status?

Is the current behavior on a lambda proc intentional, and has the spec been changed since 2.2?

And is the difference between a method proc and a lambda proc intentional, or not?

If it is unintentional, splat for a method proc too?

#12 - 01/26/2017 01:44 PM - sos4nt (Stefan Schübler)

I encountered this bug myself today and while searching for a reason behind it, I found this:

https://github.com/ruby/ruby/blob/v2_4_0/vm_insnhelper.c#L2435

```
static VALUE
vm_yield_with_cfunc(rb_thread_t *th,
    const struct rb_captured_block *captured,
    VALUE self, int argc, const VALUE *argv, VALUE block_handler)
{
    int is_lambda = FALSE; /* TODO */
```

That static FALSE value doesn't look right ...

#13 - 01/31/2017 07:02 AM - ko1 (Koichi Sasada)

- Assignee changed from ko1 (Koichi Sasada) to nobu (Nobuyoshi Nakada)

Nobu and I discussed about this issue and Nobu is trying to fix this issue by simplify lambda arg spec.

#14 - 03/13/2017 02:16 PM - shyouhei (Shyouhei Urabe)

- Target version set to 2.5

We looked at this issue in today's developer meeting and Koichi said he want this be fixed in 2.5.

#15 - 03/19/2017 01:11 AM - nobu (Nobuyoshi Nakada)

- Status changed from Assigned to Closed

Applied in changeset r58019.

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#16 - 03/21/2017 02:05 PM - naruse (Yui NARUSE)

- Backport changed from 2.2: UNKNOWN, 2.3: REQUIRED, 2.4: REQUIRED to 2.2: UNKNOWN, 2.3: REQUIRED, 2.4: DONE

ruby_2_4 r58045 merged revision(s) 57192,57464,58016,58018,58019.

#17 - 03/23/2017 03:43 AM - usa (Usaku NAKAMURA)

- Backport changed from 2.2: UNKNOWN, 2.3: REQUIRED, 2.4: DONE to 2.2: REQUIRED, 2.3: REQUIRED, 2.4: DONE

#18 - 03/31/2017 06:22 AM - nobu (Nobuyoshi Nakada)

- Related to Bug #13391: wrong number of arguments error for Hash#map when lambda given added