Ruby - Bug #13648

[PATCH] Nested map of Enumerator::Lazy with packed values gives wrong result

06/09/2017 04:11 PM - akihikodaki (Akihiko Odaki)

Status:	Closed		
Priority:	Normal		
Assignee:			
Target version:			
ruby -v:	ruby 2.5.0dev (2017-06-09 trunk 59052) [x86_64-linux]	**Backport:**	2.2: DONTNEED, 2.3: DONTNEED, 2.4: DONE

Description

This test case ends up with the following result.

```
class Step
  include Enumerable
  attr_reader :current, :args

  def initialize(enum)
    @enum = enum
    @current = nil
    @args = nil
  end

  def each(*args)
    @args = args
    @enum.each do |v|
      @current = v
      if v.is_a? Enumerable
        yield *v
      else
        yield v
      end
    end
  end
end

a = Step.new([[1, 2]])
assert_equal([[[1, 2]]], a.lazy.map {|*args| args}.map {|*args| args}.to_a)

<[[[1, 2]]]> expected but was
<[[1, 2]]>.
```

Here, [[[1, 2]]] is expected because:

- An array should be created with the first map, which results in [1, 2].
- The array should be wrapped in another array with the second map, which results in [[1, 2]].
- The array should be wrapped in another array with to_a, which results in [[[1, 2]]].

However, it returns [[1, 2]] because:

- An array will be created with the first map, which results in [1, 2].
- However, the array will be internally considered as "packed" and the unpacked arguments will be passed to the second map.
- The second map wraps them into another array, which results in [1, 2].
- The array will be wrapped in another array with to_a, which results in [[1, 2]].

I have attached the test case and a fix. The fix marks values returned by blocks are not packed.

Related issues:

Has duplicate Ruby - Bug #13699: Multiple maps over lazy enumerator yielding ...	**Closed**

Associated revisions

Revision f03997d328c2a536ad4b6c5a262ad1345570288f - 07/18/2017 12:42 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) 59056: [Backport #13648] [Backport #13699]

```
    enumerator.c: fix nested maps

    * enumerator.c (lazy_map_proc, lazy_grep_iter_proc): marks values
      returned by blocks are not packed in the case of nested maps, so
      that the result will be same as non-lazy version.  based on the
      patch by akihikodaki (Akihiko Odaki) at [ruby-core:81638],
      without GCC extension.  [Bug#13648]
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_4@59363 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision f03997d3 - 07/18/2017 12:42 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) 59056: [Backport #13648] [Backport #13699]

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History

#1 - 06/10/2017 12:13 AM - akihikodaki (Akihiko Odaki)

- ruby -v changed from ruby 2.4.1p111 (2017-03-22 revision 58053) [x86_64-linux] to ruby 2.5.0dev (2017-06-09 trunk 59052) [x86_64-linux]

#2 - 06/10/2017 10:25 AM - nobu (Nobuyoshi Nakada)

- Description updated

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

Thank you, I commit your patch without GCC extension.

#3 - 06/13/2017 01:48 PM - nobu (Nobuyoshi Nakada)

- Status changed from Open to Closed

#4 - 06/30/2017 04:57 AM - nobu (Nobuyoshi Nakada)

- Has duplicate Bug #13699: Multiple maps over lazy enumerator yielding multiple values in 2.4.x causes crash added

#5 - 07/18/2017 12:42 PM - nagachika (Tomoyuki Chikanaga)

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

ruby_2_4 r59363 merged revision(s) 59056.

Files

fix.patch	2.18 KB	06/09/2017	akihikodaki (Akihiko Odaki)