Ruby master - Bug #14373

Methods with more than 32 keyword arguments with default values have some of the arguments set to default despite being passed in.

01/18/2018 05:23 PM - sk (SK Liew)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
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<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
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<tr>
<td>Assignee:</td>
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<tr>
<td>Target version:</td>
<td>ruby 2.5.0p0 (2017-12-25 revision 61468) [x86_64-linux], ruby 2.4.0p0 (2016-12-24 revision 57164) [x86_64-linux]</td>
</tr>
<tr>
<td>Backport:</td>
<td>2.3: REQUIRED, 2.4: REQUIRED, 2.5: REQUIRED</td>
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Description

class Test
    # 33 keyword arguments
    def test1(a0: '', a1: '', a2: '', a3: '', a4: '', a5: '', a6: '', a7: '', a8: '', b0: '', b1: '',
        c5: '', c6: '', c7: '', c8: '', d0: '', d1: '', d2: '', d3: '', d4: '', d5: ')
        puts a1
        puts d5
        puts '------'
    end
    # 32 keyword arguments
    def test2(a0: '', a1: '', a2: '', a3: '', a4: '', a5: '', a6: '', a7: '', a8: '', b0: '', b1: '',
        c5: '', c6: '', c7: '', c8: '', d0: '', d1: '', d2: '', d3: '', d4: '')
        puts a1
        puts d4
        puts '------'
    end
puts 'Test1 with a1, expects a1, prints nothing in 2.5, prints a1 in 2.4 and 2.3'
Test.new.test1(a1: 'a1')

puts 'Test1 with a1 and d5, expects a1 and d5 but only prints a1'
Test.new.test1(a1: 'a1', d5: 'd5')

puts 'Test1 with d5, expects d5 but prints nothing'
Test.new.test1((d5: 'd5'))

puts 'Test2 with a1 and d4, as expected'
Test.new.test2(a1: 'a1', d4: 'd4')

puts 'Test2 with a1, as expected'
Test.new.test2(a1: 'a1')

The code above describes the issues. I noticed that Ruby 2.5 behaves slightly differently from 2.3 and 2.4 (as described in the first test case).

Related issues:
Has duplicate Ruby master - Bug #15731: Wrong evaluation of many keyword defa... | Closed

Associated revisions
Revision fb839332 - 01/19/2018 03:09 AM - nobu (Nobuyoshi Nakada)
vm_insnhelper.c: fix many keyword arguments

  * vm_insnhelper.c (vm_check_keyword): if the index exceeds the width of unspecified bits, that argument is specified. unspecified_bits still be a fixnum if the actual arguments do not exceed the limit, regardless the formal parameters size. [ruby-core:84921] [Bug #14373]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@61940 b2dd03c8-39d4-4d8f-98f8-823fe69b080e
Revision 61940 - 01/19/2018 03:09 AM - nobu (Nobuyoshi Nakada)
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Revision 1200cc01 - 01/19/2018 04:23 AM - nobu (Nobuyoshi Nakada)
vm_args.c: fix KW_SPECIFIED_BITS_MAX

- vm_args.c (KW_SPECIFIED_BITS_MAX): subtracted 1bit for FIXNUM_FLAG. [ruby-core:84921] [Bug #14373]
- vm_insnhelper.c (vm_check_keyword): unsigned for bit operation.

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@61945 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 61945 - 01/19/2018 04:23 AM - nobu (Nobuyoshi Nakada)
vm_args.c: fix KW_SPECIFIED_BITS_MAX

- vm_args.c (KW_SPECIFIED_BITS_MAX): subtracted 1bit for FIXNUM_FLAG. [ruby-core:84921] [Bug #14373]
- vm_insnhelper.c (vm_check_keyword): unsigned for bit operation.

Revision 61945 - 01/19/2018 04:23 AM - nobu (Nobuyoshi Nakada)
vm_args.c: fix KW_SPECIFIED_BITS_MAX

- vm_args.c (KW_SPECIFIED_BITS_MAX): subtracted 1bit for FIXNUM_FLAG. [ruby-core:84921] [Bug #14373]
- vm_insnhelper.c (vm_check_keyword): unsigned for bit operation.

History

#1 - 01/18/2018 06:33 PM - shevegen (Robert A. Heiler)
I ran the code and indeed, this is very strange behaviour.

The bigget surprise to me was the "prints nothing in 2.5, prints
a1 in 2.4 and 2.3" part. I know way too little to say anything
but to me this looks like a bug/regression.

I guess your code example could be used for new tests to ensure
that the functionality does not disappear in new ruby releases,
if it is a bug that is. :) (I just can't think of a reason why
it would work on ruby 2.4 but not 2.5)

#2 - 01/19/2018 03:09 AM - nobu (Nobuyoshi Nakada)
- Status changed from Open to Closed

Applied in changeset trunk61940.

vm_insnhelper.c: fix many keyword arguments

- vm_insnhelper.c (vm_check_keyword): if the index exceeds the width of unspecified bits, that argument is specified. unspecified_bits still be a
  fixnum if the actual arguments do not exceed the limit, regardless the formal parameters size. [ruby-core:84921] [Bug #14373]
#3 - 07/02/2019 04:36 PM - nobu (Nobuyoshi Nakada)
- Has duplicate Bug #15731: Wrong evaluation of many keyword default arguments in 2.3 - 2.5 added

#4 - 07/02/2019 04:38 PM - nobu (Nobuyoshi Nakada)
- Backport changed from 2.3: UNKNOWN, 2.4: UNKNOWN, 2.5: UNKNOWN to 2.3: REQUIRED, 2.4: REQUIRED, 2.5: REQUIRED