**Backport21 - Backport #9575**

**Step with 0 step is buggy**

02/27/2014 05:25 PM - marcandre (Marc-Andre Lafortune)

<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>
<td>naruse (Yui NARUSE)</td>
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**Description**

I didn't realize that we now allow stepping with a '0' step. It should probably have been mentioned in the NEWS of 2.1.0?

Anyways, couple of bugs with that new feature:

```
bn = 1 << 100
bn.step(by: 0, to: bn).first(2)  # => [bn, bn] ok
bn.step(by: 0).first(2)  # => [bn.to_f, bn.to_f] not ok
bn.step(by: 0, to: 0).first(2)  # => [] not ok
```

The corresponding size don't all work either:

```
bn.step(by: 0)  # => Float::INFINITY, ok
bn.step(by: 0, to: bn).size  # => ZeroDivisionError: divided by 0, should be infinity
bn.step(by: 0, to: 0).size  # => same
1.step(by:0, to: 42).size  # => same
```

My patch is almost finished.

**Associated revisions**

- Revision 45209 - 02/28/2014 02:04 AM - marcandre (Marc-Andre Lafortune)
  - numeric.c: Fix Numeric#step with 0 unit [#9575]

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- Revision ec8de033 - 03/02/2014 01:54 AM - marcandre (Marc-Andre Lafortune)
  - NEWS-2.1.0: Mention that step can accept a 0 unit. See #9575

```
git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@45234 b2dd03c8-39d4-4d8f-98ff-823fe69b080e
```

- Revision 45234 - 03/02/2014 01:54 AM - marcandre (Marc-Andre Lafortune)
NEWS-2.1.0: Mention that step can accept a 0 unit. See #9575

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Revision 45234 - 03/02/2014 01:54 AM - marcandre (Marc-Andre Lafortune)
NEWS-2.1.0: Mention that step can accept a 0 unit. See #9575

Revision 00e41e71 - 06/10/2014 05:24 PM - nagachika (Tomoyuki Chikanaga)
merge revision(s) r45207,r45208,r45209,r45210: [Backport #9575]
* numeric.c: Create var for rb_intern("<>")
* numeric.c: Fix Numeric#step with 0 unit [Bug #9575]
git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_1@46401 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 46401 - 06/10/2014 05:24 PM - nagachika (Tomoyuki Chikanaga)
merge revision(s) r45207,r45208,r45209,r45210: [Backport #9575]
* numeric.c: Create var for rb_intern("<>")
* numeric.c: Fix Numeric#step with 0 unit [Bug #9575]

History
#1 - 02/28/2014 02:07 AM - marcandre (Marc-Andre Lafortune)
Found many other problems when some arguments are floats:

```
4.2.step(by: 0.0).first(2) # => [], should be [4.2, 4.2]
4.2.step(by: -0.0).first(2) # => [-Infinity, -Infinity], should be [4.2, 4.2]
42.step(by: 0, to: Float::INFINITY).first(2) # => [], should be [42, 42]
42.step(by: 0, to: 42.5).first(2) # => [42.0, 42.0], should really be [42, 42]
```

I believe I've fixed all cases.

#2 - 02/28/2014 02:11 AM - marcandre (Marc-Andre Lafortune)
- Tracker changed from Bug to Backport
- Project changed from Ruby master to Backport21
- Category deleted (core)
- Assignee changed from marcandre (Marc-Andre Lafortune) to naruse (Yui NARUSE)
- Target version deleted (2.2.0)

You’ll have to backport r45206 -> r45208 in addition to r45209.

#3 - 02/28/2014 02:25 AM - marcandre (Marc-Andre Lafortune)
Also, it might be good to modify the 2.1 NEWS file to mention possibility of 0 step.
Thanks

#4 - 03/01/2014 10:42 AM - naruse (Yui NARUSE)
r45209 conflicts with current ruby_2_1 branch.

Marc-Andre Lafortune wrote:

Also, it might be good to modify the 2.1 NEWS file to mention possibility of 0 step.
Thanks

yeah, could you add NEWS and additional previous commits and NEWS commit?

thanks

#5 - 03/02/2014 02:09 AM - marcandre (Marc-Andre Lafortune)
- Status changed from Feedback to Open

Yui NARUSE wrote:

r45209 conflicts with current ruby_2_1 branch.

Right, #9570 must be backported first.

More explicitly, the following will backport both without conflicts:

git cherry-pick c1fc20124c

I pushed r45234 (ec8de033e72935)

I hope that's what you wanted?

#6 - 06/10/2014 05:24 PM - nagachika (Tomoyuki Chikanaga)
- Status changed from Open to Closed
- % Done changed from 0 to 100

Applied in changeset r46401.

merge revision(s) r45207,r45208,r45209,r45210: [Backport #9575]

* numeric.c: Create var for rb_intern("<=>")
* numeric.c: Fix Numeric#step with 0 unit [Bug #9575]