Ruby master - Feature #13983
Rational and Complex should be frozen

10/06/2017 08:53 PM - Eregon (Benoit Daloze)

Status: Closed
Priority: Normal
Assignee:
Target version: 2.5

Description
Since they basically are value types.
They also do not support #dup currently:

```ruby
> 1r.dup
TypeError: can't copy Rational
from 'initialize_copy'

> 1i.dup
TypeError: can't copy Complex
from 'initialize_copy'
```

Changing their value can only be considered a semantic bug.

So, let's follow true/false/nil/Integer/Float and friends?

Not sure what #6538 was about but I think Marshal can just freeze after setting the values.
It's slightly incompatible if people do rational.instance_variable_set(@foo, 1) or so,
but no more than on other now-frozen Numeric types and this kind of code seems highly undesirable.

Related issues:
Related to Ruby master - Feature #13985: Avoid exception for #dup/#clone on R...

Closed

Associated revisions
Revision 42c98194 - 10/19/2017 10:58 AM - nobu (Nobuyoshi Nakada)
freeze Complex and Rational

- complex.c (nucomp_s_new_internal, nucomp_loader): Complex instances are always frozen now. [Feature #13983]
- rational.c (nurat_s_new_internal, nurat_loader): Rational instances are always frozen now. [Feature #13983]

Revision 60214 - 10/19/2017 10:58 AM - nobu (Nobuyoshi Nakada)
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Revision 662fb599 - 10/28/2017 10:32 AM - Eregon (Benoit Daloze)
Add specs for [Feature #13983] Rational and Complex should be frozen

Revision 60505 - 10/28/2017 10:32 AM - Eregon (Benoit Daloze)
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History

#1 - 10/06/2017 09:00 PM - Eregon (Benoit Daloze)
- Related to Feature #13985: Avoid exception for #dup/#clone on Rational and Complex added

#2 - 10/10/2017 07:12 AM - ko1 (Koichi Sasada)
+1

#3 - 10/19/2017 08:16 AM - matz (Yukihiro Matsumoto)
Agreed.
Matz.

#4 - 10/19/2017 10:58 AM - nobu (Nobuyoshi Nakada)
- Status changed from Open to Closed

Applied in changeset trunk|r60214.

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#5 - 10/20/2017 11:13 PM - Eregon (Benoit Daloze)
- Target version set to 2.5

nobu (Nobuyoshi Nakada) wrote:

Applied in changeset trunk|r60214.

Thank you nobu for the patch!
I'll write some specs for it :)