

Ruby master - Feature #15435

Float Infinity

12/19/2018 08:08 AM - shuujii (Shuji KOBAYASHI)

Status:	Open
Priority:	Normal
Assignee:	
Target version:	

Description

Float Infinity Flonum
C DBL2NUM

Ruby Infinity
20

```
$ grep 'DBL2NUM.*HUGE_VAL' $(git ls-files | awk '/\.c$/ && !/^(spec|ext\/-test-)\//') | wc -l
21
$ egrep -- '-Float::INFINITY' $(git ls-files | egrep '^(lib|ext)/.*\.rb$') | wc -l
2
```

Infinity

benchmark-driver
Infinity
(10%)

Calculating -----

	compare-ruby	built-ruby		
positive_infinity	34.531M	62.540M i/s	-	3.000M times in 0.195822s 0.107997s
negative_infinity	42.581M	94.234M i/s	-	3.000M times in 0.159061s 0.071766s
flonum	142.010M	150.967M i/s	-	3.000M times in 0.047544s 0.045120s
heap	33.952M	34.629M i/s	-	3.000M times in 0.199321s 0.195063s

Comparison:

positive_infinity	
built-ruby:	62540441.7 i/s
compare-ruby:	34530877.6 i/s - 1.81x slower
negative_infinity	
built-ruby:	94234135.1 i/s
compare-ruby:	42580998.6 i/s - 2.21x slower
flonum	
built-ruby:	150967185.7 i/s
compare-ruby:	142010146.8 i/s - 1.06x slower
heap	
built-ruby:	34629459.1 i/s
compare-ruby:	33952081.8 i/s - 1.02x slower

History

#1 - 12/19/2018 08:13 AM - shuujii (Shuji KOBAYASHI)

- Subject changed from Float Infinity ni to Float Infinity ...

#2 - 12/19/2018 08:54 AM - shuujii (Shuji KOBAYASHI)

- Backport deleted (2.4: UNKNOWN, 2.5: UNKNOWN)

- ruby -v deleted (ruby 2.6.0rc2 (2018-12-15 trunk 66408) [x86_64-linux])

- Subject changed from Float Infinity ... to Float Infinity

- Tracker changed from Bug to Feature
- File benchmark.yml added
- File use-predefined-infinity.patch added

#3 - 12/19/2018 09:01 AM - shuujii (Shuji KOBAYASHI)

- Description updated

#4 - 12/20/2018 12:52 AM - ko1 (Koichi Sasada)

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XXXXXXXXXXXXXXXXXXXXFlonum XXXXXXXXXXXXXXX heap XXXXXXXXXXXXXXX isinf() XXXXXXXXXXXXXXXinf XXXXXXXXXXXXXXX allocate XX inf XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

if (isinf(d)) {
  return d < 0 ? rb_float_negative_infinity : rb_float_positive_infinity;
}

```

XXXXXXXXXXXXisinf(d) XXX
 XXXXXXXXXXXXXXX heap allocate XXXXXXXisinf(d) check XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXX 2% XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX...heap XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXheap
 XXX

XXXXXXXXXXXXXXXXXXXX

```

rb_global_variable(&rb_float_negative_infinity);

rb_float_negative_infinity = rb_float_new_in_heap(-HUGE_VAL);

```

- (1) rb_global_variable XXXXXrb_gc_register_mark_object XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
- (2) Infinity XXXXXXXXXXXXXXX NegativeInfinity XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

benchmark-driver XXX

#5 - 12/20/2018 02:27 PM - shuujii (Shuji KOBAYASHI)

- File use-predefined-infinity-2.patch added

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```

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rb_global_variable(&rb_float_negative_infinity);
rb_float_negative_infinity = rb_float_new_in_heap(-HUGE_VAL);

```

- (1) rb_global_variable XXXXXrb_gc_register_mark_object XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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 doc/extention.rdoc XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX#9894
 XXXXXXXXXXXXXXXXXXXXXXX)

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- (2) Infinity XXXXXXXXXXXXXXX NegativeInfinity XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Float::NEGATIVE_INFINITY XXXXXXXXXXXXXXXXXXXXXXX? XXXXXXX
 XXXXXXXJava X JavaScript XX POSITIVE_INFINITY X NEGATIVE_INFINITY X
 XXXXXXXXXXXXXXXXXXXXXXX

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XXXXXXXXXXXXXXXXXXXXFlonum XXXXXXXXXXXXXXX heap XXXXXXXXXXXXXXX isinf() XXXXXXXXXXXXXXXinf XXXXXXXXXXXXXXX allocate XX inf XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

