

Ruby - Bug #6

sprintf() of %f on Windows(MSVCRT)

05/16/2008 10:13 PM - usa (Usaku NAKAMURA)

Status:	Closed	Backport:
Priority:	Normal	
Assignee:	nobu (Nobuyoshi Nakada)	
Target version:	1.9.2	
ruby -v:	ruby 1.9.2dev (2010-02-26) [i386-mingw32]	
Description =begin running test/ruby/test_sprintf.rb(test_float): <"36893488147419111424"> expected but was <"36893488147419111000">. because sprintf() of MSVCRT is not precise. should use our own dtoa(). =end		

History

#1 - 07/17/2008 06:58 AM - usa (Usaku NAKAMURA)

```
=begin
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

test_attr(Complex_Test) [(snip)/test/ruby/test_complex.rb:186]:
<"-0.0"> expected but was
<"0.0">.

test_fixed_bug(Complex_Test) [(snip)/test/ruby/test_complex.rb:1114]:
<"-1.0-0.0i"> expected but was
<"-1.0+0.0i">.

test_to_s(TestFloat) [(snip)/test/ruby/test_float.rb:126]:
<"1.0e+14"> expected but was
<"1.0e+014">.

test_format_float(TestSprintfComb)
[(snip)/test/ruby/test_sprintf_comb.rb:539:in block (2levels) in test_format_float' (snip...) (snip)/test/ruby/test_sprintf_comb.rb:526:in test_format_float]:
sprintf("%e", -123456789).
<"-1.234568e+08"> expected but was
<"-1.234568e+008">.

=end
```

#2 - 09/28/2008 04:40 PM - yugui (Yuki Sonoda)

- Target version set to 1.9.1 Release Candidate

```
=begin

=end
```

#3 - 10/26/2008 10:35 AM - wanabe (_ wanabe)

- File sprintf.patch added

```
=begin
missing/vsnprintf.c XXXXXXXXXXXXXXXXXXXXXXXX
vsnprintf.c  XX vsnprintf XXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
=end
```

#4 - 10/26/2008 03:45 PM - nobu (Nobuyoshi Nakada)

```
=begin
#####
```

At Sun, 26 Oct 2008 10:35:17 +0900,
_ wanabe wrote in [\[ruby-dev:36932\]](#):

```
vsprintf.c  vsprintf #####
#####
```

```
win32/Makefile.sub  HAVE_VSNPRINTF  missing#####
#####
```

```
#####missing/vsprintf.c#####
```

```
--
---  #####Bug#####
---  #####Bug#####
##  ##
```

```
=end
```

#5 - 10/26/2008 08:43 PM - wanabe (_ wanabe)

```
=begin
#####
```

2008/10/26 15:45 Nobuyoshi Nakada nobu@ruby-lang.org:

At Sun, 26 Oct 2008 10:35:17 +0900,
_ wanabe wrote in [\[ruby-dev:36932\]](#):

```
vsprintf.c  vsprintf #####
#####
```

```
win32/Makefile.sub  HAVE_VSNPRINTF  missing#####
#####
```

```
mingw  ##  configure #####config.h #####
bcc  ##  msvcrt #####
#####
vsprintf  ##  rb_win32_vsprintf #####
```

```
#####missing/vsprintf.c#####
```

```
#####
test_sprintf_comb.rb #####
```

```
(1) sprintf("%e", -1.0000000000000000159e+100)
   ->#####"-1e+100"#####"-1.000000e+100"
(2) sprintf("%.0f", 0.01000000000000000000000208)
   ->#####"0."#####"0"
(3) sprintf("% #+-0.f", -0)
   ->#####"-0"#####"-0."
(4) sprintf("%.0G", 1)
   ->#####"1E+00"#####"1"
```

```
#####(1)#####
##  rb_win32_vsprintf #####
```

Index: include/ruby/win32.h

```
--- include/ruby/win32.h (revision 19941)
+++ include/ruby/win32.h (working copy)
@@ -243,7 +243,11 @@
extern void  rb_w32_free_enviro(char **);
extern int   rb_w32_map_errno(DWORD);
```

```
+#if (defined(_MSC_VER) && defined(_DLL)) || defined(MSVCRT)
+#undef HAVE_VSNPRINTF
```

+#else

#define vsnprintf(s,n,f,l) rb_w32_vsnprintf(s,n,f,l)

+#endif

#define snprintf rb_w32_snprintf

extern int rb_w32_vsnprintf(char *, size_t, const char *, va_list);

extern int rb_w32_snprintf(char *, size_t, const char *, ...);

Index: sprintf.c

--- sprintf.c (revision 19941)

+++ sprintf.c (working copy)

@@ -1018,7 +1018,7 @@

need += 20;

CHECK(need);

- [REDACTED]
- [REDACTED]
blen += strlen(&buf[blen]);
}
break;

Index: numeric.c

--- numeric.c (revision 19941)

+++ numeric.c (working copy)

@@ -530,12 +530,12 @@

else if(isnan(value))

return rb_usascii_str_new2("NaN");

- sprintf(buf, "%#.15g", value); /* ensure to print decimal point */
- snprintf(buf, 32, "%#.15g", value); /* ensure to print decimal point /
if (!(e = strchr(buf, 'e'))) {
e = buf + strlen(buf);
}
if (!SDIGIT(e[-1])) { /reformat if ended with decimal point
(ex 1111111111111111.) */
- sprintf(buf, "%#.14e", value);
- snprintf(buf, 32, "%#.14e", value);
if (!(e = strchr(buf, 'e'))) {
e = buf + strlen(buf);
}
@@ -1548,7 +1548,7 @@
char buf[24];
char *s;
- [REDACTED]
- [REDACTED]
if ((s = strchr(buf, ' ')) != 0) *s = '\0';
rb_raise(rb_eRangeError, "float %s out of range of integer", buf);
}
@@ -1694,7 +1694,7 @@
char buf[24];
char *s;
- [REDACTED]
- [REDACTED]
if ((s = strchr(buf, ' ')) != 0) *s = '\0';
rb_raise(rb_eRangeError, "float %s out of range of long long", buf);

```

}
Index: missing/vsnprintf.c
=====
--- missing/vsnprintf.c (revision 19941)
+++ missing/vsnprintf.c (working copy)
@@ -753,6 +753,8 @@
#ifdef FLOATING_POINT
case 'e': /* anomalous precision */
case 'E':

```

- [REDACTED]
- [REDACTED]

```

prec = (prec == -1) ?
    DEFPREC + 1 : prec + 1;
/* FALLTHROUGH */

```

```

@@ -782,7 +784,7 @@
cp = cvt(_double, prec, flags, &softsign,
&expt, ch, &ndig);
if (ch == 'g' || ch == 'G') {

```

- [REDACTED]
- [REDACTED]

```

ch = (ch == 'g') ? 'e' : 'E';
else
ch = 'g';

```

```

@@ -798,6 +800,8 @@
size = expt;
if (prec || flags & ALT)
size += prec + 1;

```

- [REDACTED]
- [REDACTED]

```

} else /* "0.X" */
size = prec + 2;
} else if (expt >= ndig) { /* fixed g fmt */

```

```

@@ -1008,13 +1012,15 @@
if (ch >= 'f') { /* 'f' or 'g' /
if (_double == 0) {
/kludge for __dtoa irregularity */

```

- [REDACTED]
- [REDACTED]

```

(flags & ALT) == 0) {
PRINT("0", 1);
} else {
PRINT("0.", 2);
PAD(ndig - 1, zeroes);
}

```
- [REDACTED]
- [REDACTED]

```

} else if (expt <= 0) {
PRINT("0.", 2);
PAD(-expt, zeroes);

```

```

--
[]
=end

```

#6 - 10/26/2008 10:38 PM - nobu (Nobuyoshi Nakada)

=begin
□□□□□□

At Sun, 26 Oct 2008 20:42:54 +0900,
wanabe wrote in [\[ruby-dev:36935\]](#):

```
win32/Makefile.sub HAVE_VSNPRINTF missing  
□□□□□□□□
```

```
mingw □□ configure □□□□□□ config.h □□□□□□□□  
bcc □□ msvcrt □□□□□□□□□□□□□□□□□□□□□□□□
```

```
mingw□□configre.in□ ac_cv_func_vsnprintf=yes □□□□□□□□  
□□□□□□□□□ bcc□ bcc32/Makefile.sub□□□□□□□□□□□□  
win32/Makefile.sub□□□□□□□□□□□□□□□□
```

```
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□  
vsnprintf□ □ rb_win32_vsnprintf □□□□□□□□□□□□□□□□□□
```

```
rb_w32_vsnprintf()□ msvcrt□ vsnprintf()□□□□□□□□□□□□  
□□□□□□ missing□□□□□□□□□□□□□□□□□□□□□□□□  
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□  
□□□□□□□□
```

```
□□□□□□ missing/vsnprintf.c□□□□□□□□□□□□□□□□□□
```

```
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□  
test_sprintf_comb.rb □□□□□□□□□□□□□□□□□□□□□□□□
```

□□□□□□

- sprintf(buf, "%#.15g", value); /* ensure to print decimal point */
- snprintf(buf, 32, "%#.15g", value); /* ensure to print decimal point */

```
sizeof(buf)□□□□□□□□□□□□□□□□
```

```
--  
--- □□□□□ Bug□□□□□  
--- □□□□□□ Bug□□□□□□  
□□ □□
```

=end

#7 - 12/21/2008 12:12 AM - yugui (Yuki Sonoda)

- Due date set to 12/24/2008

=begin

=end

#8 - 12/22/2008 10:29 AM - yugui (Yuki Sonoda)

- Assignee changed from usa (Usaku NAKAMURA) to nobu (Nobuyoshi Nakada)

- Priority changed from 3 to 5

```
=begin  
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□  
=end
```

#9 - 12/22/2008 12:17 PM - nobu (Nobuyoshi Nakada)

- Status changed from Open to Closed

- % Done changed from 0 to 100

```
=begin
Applied in changeset r20910.
=end
```

#10 - 02/26/2010 10:32 PM - mame (Yusuke Endoh)

- Target version changed from 1.9.1 Release Candidate to 1.9.2

- ruby -v set to ruby 1.9.2dev (2010-02-26) [i386-mingw32]

```
=begin
#####

##### reopen #####

    test_to_s(TestFloat) [(snip)/test/ruby/test_float.rb:126]:
    <"1.0e+14"> expected but was
    <"1.0e+014">.

mingw32 #####
mingw ##### regression #####

$ ./ruby test/ruby/test_float.rb
Loaded suite test/ruby/test_float
Started
.....F..
Finished in 1.019000 seconds.

1. Failure:
    test_to_s(TestFloat) [test/ruby/test_float.rb:126]:
    <"1.0e+18"> expected but was
    <"1.0e+018">.
```

31 tests, 1120 assertions, 1 failures, 0 errors, 0 skips

--

Yusuke Endoh mame@tsg.ne.jp

=end

#11 - 02/27/2010 10:40 PM - wanabe (_ wanabe)

- File force_use_missing.patch added

```
=begin
#####
configure.in #####
#####
=end
```

#12 - 02/28/2010 10:50 AM - mame (Yusuke Endoh)

```
=begin
#####

2010022722:40 _ wanabe redmine@ruby-lang.org:

    #####
    configure.in #####
    #####
```

```
mingw #####

$ ./ruby test/ruby/test_float.rb
Loaded suite test/ruby/test_float
Started
.....
Finished in 1.019000 seconds.
```

31 tests, 1120 assertions, 0 failures, 0 errors, 0 skips

```
#####
```

--

Yusuke ENDOH mame@tsg.ne.jp

=end

Files

sprintf.patch	4.24 KB	10/26/2008	wanabe (_ wanabe)
force_use_missing.patch	882 Bytes	02/27/2010	wanabe (_ wanabe)