

Ruby trunk - Feature #9772

IO#stats and File::Stats

04/24/2014 04:03 AM - naruse (Yui NARUSE)

Status:	Rejected
Priority:	Normal
Assignee:	matz (Yukihiro Matsumoto)
Target version:	

Description

IO#stats and File::Stats
stats.f_type

stats(2) Unix OS

```
struct statfs {
  uint32_t f_type; /* type of filesystem */
  uint64_t f_bsize; /* filesystem fragment size */
  uint64_t f_blocks; /* total data blocks in filesystem */
  uint64_t f_bfree; /* free blocks in filesystem */
  int64_t f_bavail; /* free blocks avail to non-superuser */
  uint64_t f_files; /* total file nodes in filesystem */
  int64_t f_ffree; /* free nodes avail to non-superuser */
  char f_fstypename[MFSNAMELEN]; /* filesystem type name */
};
```

f_type OS Linux API

CRuby

HFS+

SEEK_DATA/SEEK_HOLE

Ruby

Related issues:

Related to Ruby trunk - Bug #9788: TestFile#test_stats = Bad System Call on ...	Closed	04/30/2014
Related to Ruby trunk - Bug #9789: Error in TestIO#test_seek_symwhence and Te...	Closed	04/30/2014

Associated revisions

Revision 210f8639 - 05/22/2014 10:39 AM - naruse (Yui NARUSE)

revert File::Stats [Feature #9772]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@46042 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 46042 - 05/22/2014 10:39 AM - naruse (Yui NARUSE)

revert File::Stats [Feature #9772]

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revert File::Statfs [Feature #9772]

Revision 46042 - 05/22/2014 10:39 AM - naruse (Yui NARUSE)

revert File::Statfs [Feature #9772]

History

#1 - 04/24/2014 09:13 AM - akr (Akira Tanaka)

```

ruby-core:62137 Eric Wong POSIX statvfs statfs
API statvfs
statfs (statvfs)

```

#2 - 04/24/2014 12:29 PM - znz (Kazuhiro NISHIYAMA)

- Description updated

#3 - 04/24/2014 09:23 PM - kosaki (Motohiro KOSAKI)

```

POSIX optional fs type
statvfs misleading
statfs OS
unsigned long f_bsize File system block size.
unsigned long f_frsize Fundamental file system block size.
fsblkcnt_t f_blocks Total number of blocks on file system in units of f_frsize.
fsblkcnt_t f_bfree Total number of free blocks.
fsblkcnt_t f_bavail Number of free blocks available to non-privileged process.
fsfilcnt_t f_files Total number of file serial numbers.
fsfilcnt_t f_ffree Total number of free file serial numbers.
fsfilcnt_t f_favail Number of file serial numbers available to non-privileged process.
unsigned long f_fsid File system ID.
unsigned long f_flag Bit mask of f_flag values.
unsigned long f_namemax Maximum filename length.

```

#4 - 04/24/2014 11:11 PM - akr (Akira Tanaka)

coreutils src/stat.h

```

212 /* Return the type of the specified file system.
213 Some systems have statvfs.f_basetype[FSTYP SZ] (AIX, HP-UX, and Solaris).
214 Others have statvfs.f_fstypename[_VFS_NAMELEN] (NetBSD 3.0).
215 Others have statfs.f_fstypename[MFSNAMELEN] (NetBSD 1.5.2).
216 Still others have neither and have to get by with f_type (GNU/Linux).
217 But f_type may only exist in statfs (Cygwin). */

```

<http://git.savannah.gnu.org/gitweb/?p=coreutils.git;a=blob:f=src/stat.c:h=7d43eb55510372e18cc1129db269586710d28229;hb=HEAD#l212>

proprietary NetBSD

#5 - 04/25/2014 06:40 PM - kosaki (Motohiro KOSAKI)

2014-04-24 19:11 GMT-04:00 akr@fsj.org:

Issue #9772 has been updated by Akira Tanaka.

coreutils src/stat.h

```

212 /* Return the type of the specified file system.
213 Some systems have statvfs.f_basetype[FSTYP SZ] (AIX, HP-UX, and Solaris).
214 Others have statvfs.f_fstypename[_VFS_NAMELEN] (NetBSD 3.0).
215 Others have statfs.f_fstypename[MFSNAMELEN] (NetBSD 1.5.2).
216 Still others have neither and have to get by with f_type (GNU/Linux).
217 But f_type may only exist in statfs (Cygwin). */

```

NetBSD

statvfs

#6 - 04/26/2014 09:48 AM - taka (Takahiro Kambe)

In message redmine_journal-46305.20140424231120.f745bb8a50ac0750@ruby-lang.org
on Thu, 24 Apr 2014 23:11:20 +0000,
akr@fsj.org wrote:

- 214 Others have statvfs.f_fstypename VFS_NAMELEN.
- 215 Others have statfs.f_fstypename MFSNAMELEN.
- 216 Still others have neither and have to get by with f_type (GNU/Linux).
- 217 But f_type may only exist in statfs (Cygwin). */

<http://git.savannah.gnu.org/gitweb/?p=coreutils.git;a=blob;f=src/stat.c;h=7d43eb55510372e18cc1129db269586710d28229;hb=HEAD#l212>

NetBSD

--
Takahiro Kambe

#7 - 04/26/2014 02:21 PM - akr (Akira Tanaka)

Takahiro Kambe wrote:

NetBSD

NetBSD

#8 - 04/30/2014 06:27 AM - naruse (Yui NARUSE)

Akira Tanaka wrote:

ruby-core:62137 Eric Wong POSIX statvfs statfs

statfs f_type [ruby-core:62150]

API statvfs
statfs
(statfs)

VFS
Python os.statvfs
<https://docs.python.org/3/library/os.html?highlight=statvfs#os.statvfs>

Motohiro KOSAKI wrote:

statvfs

statfs statvfs Linux, FreeBSD, Darwin, OpenBSD
statfs NetBSD

NetBSD OpenBSD

#9 - 04/30/2014 02:04 PM - ngoto (Naohisa Goto)

- Related to Bug #9788: TestFile#test_statfs = Bad System Call on Solaris added

#10 - 04/30/2014 02:38 PM - taka (Takahiro Kambe)

In message redmine_journal-46331.20140426142125.1b2e3962cfe9fb0b@ruby-lang.org
on Sat, 26 Apr 2014 14:21:25 +0000,

akr@fsij.org wrote:

Issue [#9772](#) has been updated by Akira Tanaka.

Takahiro Kambe wrote:

```
NetBSD
```

```
NetBSD
```

```
NetBSD stats(2) statvfs(2) stats(2)
```

--
Takahiro Kambe

#11 - 04/30/2014 04:26 PM - ngoto (Naohisa Goto)

- Related to Bug [#9789](#): Error in TestIO#test_seek_symwhence and TestIO#test_seek on systems without File::Stats#type (e.g. Solaris) added

#12 - 05/01/2014 03:50 PM - djberg96 (Daniel Berger)

Also, for reference see the sys-filesystem gem. :)

#13 - 05/02/2014 03:29 PM - ngoto (Naohisa Goto)

```
r45790 File::Stats#stypename AIX, HP-UX, Solaris Solaris struct statvfs.f_basetype struct stats.f_stypename
```

#14 - 05/02/2014 11:58 PM - akr (Akira Tanaka)

Yui NARUSE wrote:

```
stats f_type [ruby-core:62150]
```

```
IO#stats f_type statvfs IO#stats
```

```
NetBSD OpenBSD
```

OpenBSD 5.5

```
% uname -mrsv
OpenBSD 5.5 GENERIC#271 amd64
% make up all
Updating '.':
At revision 45793.
./revision.h unchanged
CC = gcc
LD = ld
LDSHARED = gcc -shared
CFLAGS = -O0 -fno-fast-math -ggdb3 -Wall -Wextra -Wno-unused-parameter -Wno-parentheses -Wno-long-long
-Wno-missing-field-initializers -Wunused-variable -Werror=pointer-arith -Werror=write-strings -Werror=declara
tion-after-statement -Werror=implicit-function-declaration -Werror=deprecated-declarations -std=iso9899:1999
XCFLAGS = -D_FORTIFY_SOURCE=2 -fstack-protector -fno-strict-overflow -fvisibility=hidden -DRUBY_EXPORT
-fPIE
CPPFLAGS = -DRUBY_DEBUG_ENV -I. -I.ext/include/x86_64-opensbd5.5 -I./include -I.
DLDFLAGS = -fstack-protector -pie
SOLIBS =
Reading specs from /usr/lib/gcc-lib/amd64-unknown-opensbd5.5/4.2.1/specs
Target: amd64-unknown-opensbd5.5
Configured with: OpenBSD/amd64 system compiler
Thread model: posix
gcc version 4.2.1 20070719
compiling file.c
file.c: In function 'rb_io_stats':
file.c:1153: error: storage size of 'st' isn't known
```


#16 - 05/08/2014 04:31 AM - akr (Akira Tanaka)

Yui NARUSE wrote:

statvfs(2) - Linux man page

statvfs(2) - Linux man page
statvfs POSIX
statvfs +

statvfs(2) - Linux man page
(statfs f_fsid)

statfs/statvfs
getmntent

statfs/statvfs getmntent

(GNU/Linux) getmntent /etc/mtab
ext2/3/4

#17 - 05/08/2014 09:43 AM - naruse (Yui NARUSE)

Akira Tanaka wrote:

Yui NARUSE wrote:

statvfs(2) - Linux man page

statvfs(2) - Linux man page
statvfs POSIX
statvfs +

statvfs(2) - Linux man page
(statfs f_fsid)

statfs/statvfs

statfs/statvfs
getmntent

statfs/statvfs getmntent

(GNU/Linux) getmntent /etc/mtab
ext2/3/4

Etc.mntinfo Etc.df

#18 - 05/22/2014 10:37 AM - naruse (Yui NARUSE)

- Status changed from Assigned to Rejected

https://docs.google.com/document/d/1sl_Zec48bWLyrJZ7MZna74bY9h2YoL.BerIBHe-0EQgek/pub