

Ruby - 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 の実装 stats.f_type の実装 stats(2) は Unix の OS 依存のシステムコール OS 依存の実装 <pre>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 */ };</pre> f_type は OS 依存の Linux の実装 API の実装 CRuby の実装 HFS+ の実装 実装 実装 実装 SEEK_DATA/SEEK_HOLEの実装 Rubyの実装	
Related issues: Related to Ruby - Bug #9788: TestFile#test_stats = Bad System Call on Solaris Closed04/30/2014 Related to Ruby - Bug #9789: Error in TestIO#test_seek_symwhence and TestIO#... Closed04/30/2014	

Associated revisions

Revision 210f863906c34ad524007abb3b045d4b3cba98b1 - 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 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

History

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

ruby-core:62137 Eric Wong の POSIX の statvfs の実装

実装

API の statvfs の実装
stats の実装

(statvfs 関数)

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

- Description updated

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

POSIX statvfs 関数は optional fs type
statvfs misleading

statfs OS
statfs

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[FSTYPESZ] (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@fsij.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[FSTYPESZ] (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

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@fsij.org wrote:

```
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>

NetBSD NetBSD

NetBSD

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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

statfs f_type [\[ruby-core:62150\]](https://github.com/ruby/ruby/pull/62150)

API statvfs
statfs
(statvfs)

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 statfs(2) statvfs(2)
statfs(2)

#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::Statfs#type (e.g. Solaris) added

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

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

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

r45790 File::Statfs#fstypename AIX, HP-UX, Solaris Solaris struct statvfs.f_basetype struct statfs.f_fstypename

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

Yui NARUSE wrote:

statfs f_type [ruby-core:62150]

IO#statfs f_type
f_type statvfs
IO#statfs?

NetBSDOpenBSD...

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
LD_SHARED = gcc -shared
CFLAGS = -O0 -fno-fast-math -ggdb3 -Wall -Wextra -Wno-unused-parameter -Wno-parentheses -Wno-long-long
-Wno-missing-field-initializers -Wno-unused-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-openbsd5.5 -I./include -I.
DLDFLAGS = -fstack-protector -pie
SOLIBS =
Reading specs from /usr/lib/gcc-lib/amd64-unknown-openbsd5.5/4.2.1/specs
Target: amd64-unknown-openbsd5.5
Configured with: OpenBSD/amd64 system compiler
Thread model: posix
gcc version 4.2.1 20070719
compiling file.c
file.c: In function 'rb_io_statfs':
file.c:1153: error: storage size of 'st' isn't known
file.c:1161: warning: implicit declaration of function 'fstatvfs'
file.c:1153: warning: unused variable 'st'
file.c: In function 'statfs_memsize':
file.c:5358: error: invalid application of 'sizeof' to incomplete type 'statfs_t'
file.c: In function 'statfs_new_0':
file.c:5373: error: invalid application of 'sizeof' to incomplete type 'statfs_t'
file.c:5374: error: dereferencing pointer to incomplete type
file.c:5374: error: dereferencing pointer to incomplete type
file.c: In function 'rb_statfs_init':
file.c:5423: error: storage size of 'st' isn't known
file.c:5428: warning: implicit declaration of function 'statvfs'
file.c:5435: error: invalid application of 'sizeof' to incomplete type 'statfs_t'
file.c:5436: error: dereferencing pointer to incomplete type
file.c:5423: warning: unused variable 'st'
file.c: In function 'rb_statfs_init_copy':
file.c:5454: error: invalid application of 'sizeof' to incomplete type 'statfs_t'
```


statfs/statvfs 関数
getmntent 関数

statfs/statvfs 関数 getmntent 関数

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

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

Akira Tanaka wrote:

Yui NARUSE wrote:

statfs 関数 statvfs 関数
statvfs POSIX
statvfs +

statfs 関数 statvfs 関数
(statfs f_fsid)

statfs/statvfs 関数
getmntent 関数

statfs/statvfs 関数 getmntent 関数

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

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/1sLZec48bWLyrJZ7MZna74bY9h2YoLBerlBHe-0EQgek/pub>