

NAME

SDBM_File - Tied access to sdbm files

SYNOPSIS

```
use Fcntl; # For O_RDWR, O_CREAT, etc.
use SDBM_File;

tie(%h, 'SDBM_File', 'filename', O_RDWR|O_CREAT, 0666)
    or die "Couldn't tie SDBM file 'filename': $!; aborting";

# Now read and change the hash
$h{newkey} = newvalue;
print $h{oldkey};
...

untie %h;
```

DESCRIPTION

"SDBM_File" establishes a connection between a Perl hash variable and a file in SDBM_File format. You can manipulate the data in the file just as if it were in a Perl hash, but when your program exits, the data will remain in the file, to be used the next time your program runs.

Tie

Use "SDBM_File" with the Perl built-in "tie" function to establish the connection between the variable and the file.

```
tie %hash, 'SDBM_File', $basename, $modeflags, $perms;

tie %hash, 'SDBM_File', $dirfile, $modeflags, $perms, $pagfilename;
```

\$basename is the base filename for the database. The database is two files with ".dir" and ".pag" extensions appended to \$basename,

```
$basename.dir    (or .sdbm_dir on VMS, per DIRFEXT constant)
$basename.pag
```

The two filenames can also be given separately in full as \$dirfile and \$pagfilename. This suits for two files without ".dir" and ".pag" extensions, perhaps for example two files from File::Temp.

\$modeflags can be the following constants from the "Fcntl" module (in the style of the **open(2)** system

call),

O_RDONLY	read-only access
O_WRONLY	write-only access
O_RDWR	read and write access

If you want to create the file if it does not already exist then bitwise-OR ("|") "O_CREAT" too. If you omit "O_CREAT" and the database does not already exist then the "tie" call will fail.

O_CREAT	create database if doesn't already exist
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\$perms is the file permissions bits to use if new database files are created. This parameter is mandatory even when not creating a new database. The permissions will be reduced by the user's umask so the usual value here would be 0666, or if some very private data then 0600. (See "umask" in perlfunc.)

EXPORTS

SDBM_File optionally exports the following constants:

- ⊕ "PAGFEXT" - the extension used for the page file, usually ".pag".
- ⊕ "DIRFEXT" - the extension used for the directory file, ".dir" everywhere but VMS, where it is ".sdbm_dir".
- ⊕ "PAIRMAX" - the maximum size of a stored hash entry, including the length of both the key and value.

These constants can also be used with fully qualified names, eg. "SDBM_File::PAGFEXT".

DIAGNOSTICS

On failure, the "tie" call returns an undefined value and probably sets \$! to contain the reason the file could not be tied.

"sdbm store returned -1, errno 22, key ..." at ..."

This warning is emitted when you try to store a key or a value that is too long. It means that the change was not recorded in the database. See BUGS AND WARNINGS below.

SECURITY WARNING

Do not accept SDBM files from untrusted sources!

The sdbm file format was designed for speed and convenience, not for portability or security. A

maliciously crafted file might cause perl to crash or even expose a security vulnerability.

BUGS AND WARNINGS

There are a number of limits on the size of the data that you can store in the SDBM file. The most important is that the length of a key, plus the length of its associated value, may not exceed 1008 bytes.

See "tie" in perlfunc, perldbmfilter, Fcntl