

libvsdb Reference Manual

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Chapter 1

libvsdb File Index

1.1 libvsdb File List

Here is a list of all documented files with brief descriptions:

vsdb.c	..	??
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Chapter 2

libvsdb File Documentation

2.1 vsdb.h File Reference

Interface to libvsdb.

```
#include <inttypes.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <fcntl.h>
#include <stdbool.h>
```

Compounds

- struct **vsdb_info**

Functions

- vsdb_t * **vsdb_open** (char *name, int mode)
open a database.
 - void **vsdb_close** (vsdb_t *v)
Close database.
 - vsdb_transaction_t * **vsdb_transaction_begin** (vsdb_t *vsdb, int mode)
begin a transaction.
-

- void [vsdb_transaction_rollback](#) (vsdb_transaction_t *vt)
rollback a transaction.
- int [vsdb_transaction_commit](#) (vsdb_transaction_t *vt)
commits a transaction.
- void [vsdb_clear](#) (vsdb_transaction_t *vt, void *key, size_t keysz)
delete a key/data pair from the database.
- void [vsdb_set](#) (vsdb_transaction_t *vt, void *key, size_t keysz, void *data, size_t datasz)
add or replace a key/datapair in the database.
- int [vsdb_lookup](#) (vsdb_transaction_t *vt, void *key, size_t keysz, uintmax_t *which)
lookup an entry in the database.
- void [vsdb_aread_entry](#) (vsdb_transaction_t *vt, uintmax_t entry, void **key, size_t *keysz, void **data, size_t *datasz)
read entry into freshly allocated arrays.
- char * [vsdb_lookup_ss](#) (vsdb_transaction_t *vt, char *key)
utility to lookup a string value with a string key.
- int [vsdb_repair_database](#) (char *s)
Attempt to repair a database.
- void [vsdb_set_verbose_mode](#) (bool val)
Turn verbose mode on or off.
- void [vsdb_set_die_on_error](#) (void)
This will casue vsdb to die with an error message on stderr instead of returning (-1) on errors and setting errno.
- void [vsdb_set_errfn](#) (void(*fn)(char *))
set error handling function, if this function returns then (-1) is returned and errno is set appropriately.

2.1.1 Detailed Description

Interface to libvsdb.

Definition in file [vsdb.h](#).

2.1.2 Function Documentation

2.1.2.1 void vsdb_aread_entry (vsdb_transaction_t * vt, uintmax_t entry, void ** key, size_t * keysz, void ** data, size_t * datasz)

read entry into freshly allocated arrays.

for each non-NULL parameter, set the referenced value to a freshly allocated copy of the data in the database. the values should be freed with the standard free of malloc/free. any of key, keysz, data, or datasz may be passed NULL if you do not wish to retrieve their values.

Definition at line 925 of file vsdb.c.

2.1.2.2 void vsdb_close (vsdb_t * v)

Close database.

release all resources and rollback all open transactions associated with a database.

Definition at line 818 of file vsdb.c.

2.1.2.3 int vsdb_lookup (vsdb_transaction_t * vt, void * key, size_t keysz, uintmax_t * which)

lookup an entry in the database.

returns 0 and sets *which if entry is found. returns 1 if entry not found.

Definition at line 880 of file vsdb.c.

2.1.2.4 char* vsdb_lookup_ss (vsdb_transaction_t * vt, char * key)

utility to lookup a string value with a string key.

the value returned and the key parameter are NULL terminated, although it is assumed the entries in the database will not have the trailing NULL.

Definition at line 976 of file vsdb.c.

2.1.2.5 vsdb_t* vsdb_open (char * name, int mode)

open a database.

Parameters:

name path to the database directory.

mode one of O_RDONLY, O_RDWR, O_WRONLY perhaps ored with the flags O_CREAT or O_TRUNC this returns NULL on error.

Definition at line 767 of file vsdb.c.

2.1.2.6 int vsdb_repair_database (char * s)

Attempt to repair a database.

This normally need not be called by user programs.

Definition at line 709 of file vsdb.c.

2.1.2.7 void vsdb_set_errfn (void(*fn)(char *))

set error handling function, if this function returns then (-1) is returned and errno is set appropriately.

All clean-up is done before calling this error function so 'longjmp' may be called to quit it without leaking resources.

Definition at line 169 of file vsdb.c.

2.1.2.8 void vsdb_set_verbose_mode (bool val)

Turn verbose mode on or off.

setting verbose mode will also set an error handler which prints errors to stderr before returning the error code.

Definition at line 141 of file vsdb.c.

2.1.2.9 vsdb_transaction_t* vsdb_transaction_begin (vsdb_t * vsdb, int mode)

begin a transaction.

This ALWAYS must be paired with a vsdb_transaction_commit or vsdb_transaction_rollback.

Definition at line 359 of file vsdb.c.

2.1.2.10 int vsdb_transaction_commit (vsdb_transaction_t * vt)

commits a transaction.

This attempts to cause all changes to the database during this transaction to become permanent and visible to other readers of this database. This function returns 0 on

success, a positive number if there was a conflict and the commit should be retried and -1 on error. it is important to check the return code and retry the transaction if a positive number is returned.

Definition at line 409 of file vsdb.c.

2.1.2.11 void vsdb.transaction_rollback (vsdb_transaction_t * vt)

rollback a transaction.

All changes made to the database in this transaction are discarded.

Definition at line 392 of file vsdb.c.

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