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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'shadow.3' command

$ man shadow.3

SHADOW(3) Library Calls SHADOW(3)

NAME

shadow, getspnam - encrypted password file routines

SYNTAX

```
#include <shadow.h>

struct spwd *getspent();

struct spwd *getspnam(char *name);

void setspent();

void endspent();

struct spwd *fgetspent(FILE *fp);

struct spwd *sgetspent(char *cp);

int putspent(struct spwd *p, FILE *fp);

int lckpwdf();

int ulckpwdf();
```

DESCRIPTION

shadow manipulates the contents of the shadow password file, /etc/shadow. The structure in the #include file is:

```
struct spwd {
    char        *sp_namp; /* user login name */
    char        *sp_pwdp; /* encrypted password */
    long int    sp_lstchg; /* last password change */
    long int    sp_min; /* days until change allowed. */
    long int    sp_max; /* days before change required */
```

```
    long int      sp_warn; /* days warning for expiration */
    long int      sp_inact; /* days before account inactive */
    long int      sp_expire; /* date when account expires */
    unsigned long int  sp_flag; /* reserved for future use */
  }
```

The meanings of each field are:

- sp_namp - pointer to null-terminated user name
- sp_pwdp - pointer to null-terminated password
- sp_lstchg - days since Jan 1, 1970 password was last changed
- sp_min - days before which password may not be changed
- sp_max - days after which password must be changed
- sp_warn - days before password is to expire that user is warned of pending password expiration
- sp_inact - days after password expires that account is considered inactive and disabled
- sp_expire - days since Jan 1, 1970 when account will be disabled
- sp_flag - reserved for future use

DESCRIPTION

getspent, getspname, fgetspent, and sgetspent each return a pointer to a struct spwd. getspent returns the next entry from the file, and fgetspent returns the next entry from the given stream, which is assumed to be a file of the proper format. sgetspent returns a pointer to a struct spwd using the provided string as input. getspnam searches from the current position in the file for an entry matching name. setspent and endspent may be used to begin and end, respectively, access to the shadow password file.

The lckpwdf and ulckpwdf routines should be used to insure exclusive access to the /etc/shadow file. lckpwdf attempts to acquire a lock using pw_lock for up to 15 seconds. It continues by attempting to acquire a second lock using spw_lock for the remainder of the initial 15 seconds. Should either attempt fail after a total of 15 seconds, lckpwdf returns -1. When both locks are acquired 0 is returned.

DIAGNOSTICS

Routines return NULL if no more entries are available or if an error occurs during processing. Routines which have int as the return value return 0 for success and -1 for failure.

CAVEATS

These routines may only be used by the superuser as access to the shadow password file is restricted.

FILES

/etc/shadow

Secure user account information.

SEE ALSO

getpwent(3), shadow(5).