



Linux Ubuntu 26.04 Manual Pages on command 'getprotobyname.3'

\$ man getprotobyname.3

getprotoent(3) Library Functions Manual getprotoent(3)

NAME

getprotoent, getprotobyname, getprotobynumber, setprotoent, endprotoent - get protocol entry

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <netdb.h>

struct protoent *getprotoent(void);

struct protoent *getprotobyname(const char *name);

struct protoent *getprotobynumber(int proto);

void setprotoent(int stayopen);

void endprotoent(void);
```

DESCRIPTION

The `getprotoent()` function reads the next entry from the protocols database (see `proto(5)`) and returns a `protoent` structure containing the broken-out fields from the entry.

A connection is opened to the database if necessary.

The `getprotobyname()` function returns a `protoent` structure for the entry from the database that matches the protocol name `name`. A connection is opened to the database if necessary.

The `getprotobynumber()` function returns a `protoent` structure for the entry from the database that matches the protocol number `number`. A connection is opened to the database if necessary.

The `setprotoent()` function opens a connection to the database, and sets the next entry to the first entry. If `stayopen` is nonzero, then the connection to the database will not be

closed between calls to one of the getproto*() functions.

The endprotoent() function closes the connection to the database.

The protoent structure is defined in <netdb.h> as follows:

```
struct protoent {  
    char *p_name;    /* official protocol name */  
    char **p_aliases; /* alias list */  
    int  p_proto;    /* protocol number */  
}
```

The members of the protoent structure are:

- p_name The official name of the protocol.
- p_aliases
A NULL-terminated list of alternative names for the protocol.
- p_proto
The protocol number.

RETURN VALUE

The getprotoent(), getprotobyname(), and getprotobynumber() functions return a pointer to a statically allocated protoent structure, or a null pointer if an error occurs or the end of the file is reached.

FILES

- /etc/protocols
protocol database file

ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

??			
? Interface	? Attribute	? Value	?
??			
? getprotoent()	? Thread safety	? MT-Unsafe race:protoent race:protoentbuf locale	?
??			
? getprotobyname()	? Thread safety	? MT-Unsafe race:protobyname locale	?
??			
? getprotobynumber()	? Thread safety	? MT-Unsafe race:protobynumber locale	?
??			
? setprotoent(),	? Thread safety	? MT-Unsafe race:protoent locale	?

? endprotoent() ? ? ?

[illegible]

In the above table, protoent in race:protoent signifies that if any of the functions setprotoent(), getprotoent(), or endprotoent() are used in parallel in different threads of a program, then data races could occur.

STANDARDS

POSIX.1-2008.

HISTORY

POSIX.1-2001, 4.3BSD.

SEE ALSO

```
getnetent(3), getprotoent_r(3), getservent(3), protocols(5)
```

Linux man-pages 6.17

2026-02-08

```
getprotoent(3)
```