NAME
> getprotoent, getprotobyname, getprotobynumber, setprotoent, endprotoent – get protocol entry

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 protocols(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(), **endprotoent**()	Thread safety	MT-Unsafe race:protoent locale

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.

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, 4.3BSD.

SEE ALSO

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

COLOPHON

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