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

$ man if_nameindex.3

IF_NAMEINDEX(3)   Linux Programmer's Manual   IF_NAMEINDEX(3)

NAME

    if_nameindex, if_freenameindex - get network interface names and in?

    dexes

SYNOPSIS

    #include <net/if.h>

    struct if_nameindex *if_nameindex(void);

    void if_freenameindex(struct if_nameindex *ptr);

DESCRIPTION

    The if_nameindex() function returns an array of if_nameindex struc?

    tures, each containing information about one of the network interfaces

    on the local system. The if_nameindex structure contains at least the

    following entries:

        unsigned int if_index; /* Index of interface (1, 2, ...) */

        char   *if_name; /* Null-terminated name ("eth0", etc.) */

    The if_index field contains the interface index. The if_name field

    points to the null-terminated interface name. The end of the array is

    indicated by entry with if_index set to zero and if_name set to NULL.

    The data structure returned by if_nameindex() is dynamically allocated

    and should be freed using if_freenameindex() when no longer needed.

RETURN VALUE

    On success, if_nameindex() returns pointer to the array; on error, NULL

    is returned, and errno is set appropriately.

ERRORS

if_nameindex() may fail and set errno if:

ENOBUFS

Insufficient resources available.

if_nameindex() may also fail for any of the errors specified for socket(2), bind(2), ioctl(2), getsockname(2), recvmsg(2), sendto(2), or malloc(3).

VERSIONS

The if_nameindex() function first appeared in glibc 2.1, but before glibc 2.3.4, the implementation supported only interfaces with IPv4 ad? dresses. Support of interfaces that don't have IPv4 addresses is available only on kernels that support netlink.

ATTRIBUTES

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

???
?Interface   ? Attribute   ? Value   ?
???
?if_nameindex(),   ? Thread safety ? MT-Safe ?
?if_freenameindex() ?   ?   ?
???

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, RFC 3493.

This function first appeared in BSDi.

EXAMPLES

The program below demonstrates the use of the functions described on this page. An example of the output this program might produce is the following:

```
$ ./a.out
1: lo
2: wlan0
3: em1
```

Program source

```c
#include <net/if.h>
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>

int
main(int argc, char *argv[])
{
    struct if_nameindex *if_ni, *i;

    if_ni = if_nameindex();
    if (if_ni == NULL) {
        perror("if_nameindex");
        exit(EXIT_FAILURE);
    }

    for (i = if_ni; ! (i->if_index == 0 && i->if_name == NULL); i++)
        printf("%u: %s\n", i->if_index, i->if_name);

    if_freenameindex(if_ni);
    exit(EXIT_SUCCESS);
}
```

SEE ALSO

getsockopt(2), setsockopt(2), getifaddrs(3), if_indextoname(3), if_nametoindex(3), ifconfig(8)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project.   A description of the project, information about reporting bugs, and the latest version of this page, can be found at https://www.kernel.org/doc/man-pages/.

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