

**NAME**

gethostid, sethostid - get or set the unique identifier of the current host

**SYNOPSIS**

```
#include <unistd.h>
```

```
long gethostid(void);
int sethostid(long hostid);
```

Feature Test Macro Requirements for glibc (see [feature\\_test\\_macros\(7\)](#)):

```
gethostid():
    _BSD_SOURCE || _XOPEN_SOURCE >= 500
sethostid():
    Since glibc 2.21:
    _DEFAULT_SOURCE
    In glibc 2.19 and 2.20:
    _DEFAULT_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)
    Up to and including glibc 2.19:
    _BSD_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)
```

**DESCRIPTION**

**gethostid()** and **sethostid()** respectively get or set a unique 32-bit identifier for the current machine. The 32-bit identifier is intended to be unique among all UNIX systems in existence. This normally resembles the Internet address for the local machine, as returned by [gethostbyname\(3\)](#), and thus usually never needs to be set.

The **sethostid()** call is restricted to the superuser.

**RETURN VALUE**

**gethostid()** returns the 32-bit identifier for the current host as set by **sethostid()**.

On success, **sethostid()** returns 0; on error, -1 is returned, and *errno* is set to indicate the error.

**ERRORS**

**sethostid()** can fail with the following errors:

**EACCES**

The caller did not have permission to write to the file used to store the host ID.

**EPERM**

The calling process's effective user or group ID is not the same as its corresponding real ID.

**ATTRIBUTES**

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

Interface	Attribute	Value
<b>gethostid()</b>	Thread safety	MT-Safe hostid env locale
<b>sethostid()</b>	Thread safety	MT-Unsafe const:hostid

**CONFORMING TO**

4.2BSD; these functions were dropped in 4.4BSD. SVr4 includes **gethostid()** but not **sethostid()**.

POSIX.1-2001 and POSIX.1-2008 specify **gethostid()** but not **sethostid()**.

**NOTES**

In the glibc implementation, the *hostid* is stored in the file */etc/hostid*. (In glibc versions before 2.2, the file */var/adm/hostid* was used.)

In the glibc implementation, if **gethostid()** cannot open the file containing the host ID, then it obtains the hostname using [gethostname\(2\)](#), passes that hostname to [gethostbyname\\_r\(3\)](#) in order to obtain the host's IPv4 address, and returns a value obtained by bit-twiddling the IPv4 address. (This value may not be unique.)

**BUGS**

It is impossible to ensure that the identifier is globally unique.

**SEE ALSO**

[hostid\(1\)](#), [gethostbyname\(3\)](#)

**COLOPHON**

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