

**NAME**

profil - execution time profile

**SYNOPSIS**

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

```
int profil(unsigned short *buf, size_t bufsiz,
           size_t offset, unsigned int scale);
```

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

**profil():**

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**

This routine provides a means to find out in what areas your program spends most of its time. The argument *buf* points to *bufsiz* bytes of core. Every virtual 10 milliseconds, the user's program counter (PC) is examined: *offset* is subtracted and the result is multiplied by *scale* and divided by 65536. If the resulting value is less than *bufsiz*, then the corresponding entry in *buf* is incremented. If *buf* is NULL, profiling is disabled.

**RETURN VALUE**

Zero is always returned.

**ATTRIBUTES**

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

Interface	Attribute	Value
<b>profil()</b>	Thread safety	MT-Unsafe

**CONFORMING TO**

Similar to a call in SVr4 (but not POSIX.1).

**BUGS**

**profil()** cannot be used on a program that also uses **ITIMER\_PROF** interval timers (see [setitimer\(2\)](#)).

True kernel profiling provides more accurate results. Libc 4.4 contained a kernel patch providing a system call `profil`.

**SEE ALSO**

[gprof\(1\)](#), [sprof\(1\)](#), [setitimer\(2\)](#), [sigaction\(2\)](#), [signal\(2\)](#)

**COLOPHON**

This page is part of release 4.10 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/>.