

## NAME

a64l, l64a – convert between long and base-64

## SYNOPSIS

```
#include <stdlib.h>

long a64l(const char *str64);

char *l64a(long value);
```

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

```
a64l(), l64a():
_XOPEN_SOURCE >= 500
  || /* Glibc since 2.19: */ _DEFAULT_SOURCE
  || /* Glibc versions <= 2.19: */ _SVID_SOURCE
```

## DESCRIPTION

These functions provide a conversion between 32-bit long integers and little-endian base-64 ASCII strings (of length zero to six). If the string used as argument for [a64l\(\)](#) has length greater than six, only the first six bytes are used. If the type *long* has more than 32 bits, then [l64a\(\)](#) uses only the low order 32 bits of *value*, and [a64l\(\)](#) sign-extends its 32-bit result.

The 64 digits in the base-64 system are:

'0'	represents a 0
'1'	represents a 1
0-9	represent 2-11
A-Z	represent 12-37
a-z	represent 38-63

So  $123 = 59 * 64^0 + 1 * 64^1 = "v/"$ .

## ATTRIBUTES

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

Interface	Attribute	Value
<a href="#">l64a()</a>	Thread safety	MT-Unsafe race:l64a
<a href="#">a64l()</a>	Thread safety	MT-Safe

## CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

## NOTES

The value returned by [l64a\(\)](#) may be a pointer to a static buffer, possibly overwritten by later calls.

The behavior of [l64a\(\)](#) is undefined when *value* is negative. If *value* is zero, it returns an empty string.

These functions are broken in glibc before 2.2.5 (puts most significant digit first).

This is not the encoding used by [uuencode\(1\)](#).

## SEE ALSO

[uuencode\(1\)](#), [strtoul\(3\)](#)

## COLOPHON

This page is part of release 5.05 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/>.