

**NAME**

asprintf, vasprintf - print to allocated string

**SYNOPSIS**

```
#define _GNU_SOURCE /* See feature\_test\_macros\(7\) */  
#include <stdio.h>
```

```
int asprintf(char **strp, const char *fmt, ...);
```

```
int vasprintf(char **strp, const char *fmt, va_list ap);
```

**DESCRIPTION**

The functions **asprintf()** and **vasprintf()** are analogs of [sprintf\(3\)](#) and [vsprintf\(3\)](#), except that they allocate a string large enough to hold the output including the terminating null byte ('\0'), and return a pointer to it via the first argument. This pointer should be passed to [free\(3\)](#) to release the allocated storage when it is no longer needed.

**RETURN VALUE**

When successful, these functions return the number of bytes printed, just like [sprintf\(3\)](#). If memory allocation wasn't possible, or some other error occurs, these functions will return -1, and the contents of *strp* is undefined.

**CONFORMING TO**

These functions are GNU extensions, not in C or POSIX. They are also available under \*BSD. The FreeBSD implementation sets *strp* to NULL on error.

**SEE ALSO**

[free\(3\)](#), [malloc\(3\)](#), [printf\(3\)](#)

**COLOPHON**

This page is part of release 3.74 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 <http://www.kernel.org/doc/man-pages/>.