



Linux Ubuntu 26.04 Manual Pages on command 'stpcpy.3'

\$ man stpcpy.3

stpcpy(3) Library Functions Manual stpcpy(3)

NAME

stpcpy, strcpy, strcat - copy or concatenate a string

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <string.h>

char *stpcpy(char *restrict dst, const char *restrict src);

char *strcpy(char *restrict dst, const char *restrict src);

char *strcat(char *restrict dst, const char *restrict src);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

stpcpy():

Since glibc 2.10:

 _POSIX_C_SOURCE >= 200809L

Before glibc 2.10:

 _GNU_SOURCE

DESCRIPTION

stpcpy()

strcpy()

These functions copy the string pointed to by src, into a string at the buffer pointed to by dst. The programmer is responsible for allocating a destination buffer large enough, that is, strlen(src) + 1. For the difference between the two func-

tions, see RETURN VALUE.

strcat()

This function catenates the string pointed to by `src`, after the string pointed to by `dst` (overwriting its terminating null byte). The programmer is responsible for allocating a destination buffer large enough, that is, `strlen(dst) + strlen(src) + 1`.

An implementation of these functions might be:

```
char *
strcpy(char *restrict dst, const char *restrict src)
{
    char *p;
    p = mempcpy(dst, src, strlen(src));
    *p = '\0';
    return p;
}

char *
strncpy(char *restrict dst, const char *restrict src)
{
    stpcpy(dst, src);
    return dst;
}

char *
strcat(char *restrict dst, const char *restrict src)
{
    stpcpy(dst + strlen(dst), src);
    return dst;
}
```

RETURN VALUE

stpcpy()

This function returns a pointer to the terminating null byte of the copied string.

strncpy()

strcat()

These functions return `dst`.

ATTRIBUTES

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

Interface	Attribute	Value
stpcpy(), strcpy(), strcat()	Thread safety	MT-Safe

```
strcpy()
    POSIX.1-2008.
strncpy()
strcat()
    C11, POSIX.1-2008.
```

```
strcpy()
    POSIX.1-2008.
strncpy()
strcat()
    POSIX.1-2001, C89, SVr4, 4.3BSD.
```

The strings `src` and `dst` may not overlap.

If the destination buffer is not large enough, the behavior is undefined. See `_FOR?` `TIFY_SOURCE` in `feature_test_macros(7)`.

`strcat()` can be very inefficient. Read about Shlemiel the painter.

```
#include <err.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

int
main(void)
{
    char    *p;
    char    *buf1;
    char    *buf2;
```

```

size_t len, size;

size = strlen("Hello ") + strlen("world") + strlen("!") + 1;

buf1 = malloc(sizeof(*buf1) * size);

if (buf1 == NULL)
    err(EXIT_FAILURE, "malloc()");

buf2 = malloc(sizeof(*buf2) * size);

if (buf2 == NULL)
    err(EXIT_FAILURE, "malloc()");

p = buf1;

p = strcpy(p, "Hello ");

p = strcpy(p, "world");

p = strcpy(p, "!");

len = p - buf1;

printf("[len = %zu]: ", len);

puts(buf1); // "Hello world!"

free(buf1);

strcpy(buf2, "Hello ");

strcat(buf2, "world");

strcat(buf2, "!");

len = strlen(buf2);

printf("[len = %zu]: ", len);

puts(buf2); // "Hello world!"

free(buf2);

exit(EXIT_SUCCESS);

}

```

SEE ALSO

[strdup\(3\)](#), [string\(3\)](#), [wcscpy\(3\)](#), [string_copying\(7\)](#)