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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'strdup.3p' command

\$ man strdup.3p

STRDUP(3P) POSIX Programmer's Manual STRDUP(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

strdup, strndup ? duplicate a specific number of bytes from a string

SYNOPSIS

```
#include <string.h>

char *strdup(const char *s);

char *strndup(const char *s, size_t size);
```

DESCRIPTION

The `strdup()` function shall return a pointer to a new string, which is a duplicate of the string pointed to by `s`. The returned pointer can be passed to `free()`. A null pointer is returned if the new string cannot be created.

The `strndup()` function shall be equivalent to the `strdup()` function, duplicating the provided `s` in a new block of memory allocated as if by using `malloc()`, with the exception being that `strndup()` copies at most `size` plus one bytes into the newly allocated memory, terminating the new string with a NUL character. If the length of `s` is larger than `size`, only `size` bytes shall be duplicated. If `size` is larger than the

length of `s`, all bytes in `s` shall be copied into the new memory buffer, including the terminating NUL character. The newly created string shall always be properly terminated.

RETURN VALUE

The `strdup()` function shall return a pointer to a new string on success. Otherwise, it shall return a null pointer and set `errno` to indicate the error.

Upon successful completion, the `strndup()` function shall return a pointer to the newly allocated memory containing the duplicated string. Otherwise, it shall return a null pointer and set `errno` to indicate the error.

ERRORS

These functions shall fail if:

`ENOMEM` Storage space available is insufficient.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

For functions that allocate memory as if by `malloc()`, the application should release such memory when it is no longer required by a call to `free()`. For `strdup()` and `strndup()`, this is the return value.

Implementations are free to `malloc()` a buffer containing either $(\text{size} + 1)$ bytes or $(\text{strlen}(s, \text{size}) + 1)$ bytes. Applications should not assume that `strndup()` will allocate $(\text{size} + 1)$ bytes when `strlen(s)` is smaller than `size`.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

`free()`, `wcsdup()`

The Base Definitions volume of POSIX.1?2017, `<string.h>`

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