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Rocky Enterprise Linux 9.2 Manual Pages on command 'tempnam.3'

\$ man tempnam.3

TEMPNAM(3) Linux Programmer's Manual TEMPNAM(3)

NAME

tempnam - create a name for a temporary file

SYNOPSIS

```
#include <stdio.h>
```

```
char *tempnam(const char *dir, const char *pfx);
```

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

tempnam():

Since glibc 2.19:

```
_DEFAULT_SOURCE
```

Glibc 2.19 and earlier:

```
_BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

Never use this function. Use mkstemp(3) or tmpfile(3) instead.

The tempnam() function returns a pointer to a string that is a valid filename, and such that a file with this name did not exist when tempnam() checked. The filename suffix of the pathname generated will start with pfx in case pfx is a non-NULL string of at most five bytes.

The directory prefix part of the pathname generated is required to be "appropriate" (often that at least implies writable).

Attempts to find an appropriate directory go through the following steps:

- a) In case the environment variable TMPDIR exists and contains the name of an appropriate directory, that is used.
- b) Otherwise, if the dir argument is non-NULL and appropriate, it is used.
- c) Otherwise, P_tmpdir (as defined in <stdio.h>) is used when appropriate.
- d) Finally an implementation-defined directory may be used.

The string returned by tempnam() is allocated using malloc(3) and hence should be freed by free(3).

RETURN VALUE

On success, the tempnam() function returns a pointer to a unique temporary filename. It returns NULL if a unique name cannot be generated, with errno set to indicate the cause of the error.

ERRORS

ENOMEM Allocation of storage failed.

ATTRIBUTES

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

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?Interface ? Attribute ? Value ?

??

?tempnam() ? Thread safety ? MT-Safe env ?

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CONFORMING TO

SVr4, 4.3BSD, POSIX.1-2001. POSIX.1-2008 marks tempnam() as obsolete.

NOTES

Although tempnam() generates names that are difficult to guess, it is nevertheless possible that between the time that tempnam() returns a pathname, and the time that the program opens it, another program might

create that pathname using `open(2)`, or create it as a symbolic link.

This can lead to security holes. To avoid such possibilities, use the `open(2)` `O_EXCL` flag to open the pathname. Or better yet, use `mkstemp(3)` or `tmpfile(3)`.

SUSv2 does not mention the use of `TMPDIR`; glibc will use it only when the program is not set-user-ID. On SVr4, the directory used under `d)` is `/tmp` (and this is what glibc does).

Because it dynamically allocates memory used to return the pathname, `tempnam()` is reentrant, and thus thread safe, unlike `tmpnam(3)`.

The `tempnam()` function generates a different string each time it is called, up to `TMP_MAX` (defined in `<stdio.h>`) times. If it is called more than `TMP_MAX` times, the behavior is implementation defined.

`tempnam()` uses at most the first five bytes from `px`.

The glibc implementation of `tempnam()` fails with the error `EEXIST` upon failure to find a unique name.

BUGS

The precise meaning of "appropriate" is undefined; it is unspecified how accessibility of a directory is determined.

SEE ALSO

`mkstemp(3)`, `mktemp(3)`, `tmpfile(3)`, `tmpnam(3)`

COLOPHON

This page is part of release 5.10 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/>.

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