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# Red Hat Enterprise Linux Release 9.2 Manual Pages on 'tempnam.3' command

# \$ 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 temp? nam() 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 appropri? ate.
- 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 tempo? rary 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 at? tributes(7).

?Interface ? Attribute ? Value ?

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

### **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 mk? stemp(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 pfx.

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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