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## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'dirname.3p' command***

### ***\$ man dirname.3p***

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

dirname ? report the parent directory name of a file pathname

#### SYNOPSIS

```
#include <libgen.h>

char *dirname(char *path);
```

#### DESCRIPTION

The `dirname()` function shall take a pointer to a character string that contains a pathname, and return a pointer to a string that is a path? name of the parent directory of that file. The `dirname()` function shall not perform pathname resolution; the result shall not be affected by whether or not path exists or by its file type. Trailing '/' characters in the path that are not also leading '/' characters shall not be counted as part of the path.

If path does not contain a '/', then `dirname()` shall return a pointer to the string ".". If path is a null pointer or points to an empty string, `dirname()` shall return a pointer to the string ".".

The `dirname()` function may modify the string pointed to by path, and

may return a pointer to static storage that may then be overwritten by a subsequent call to `dirname()`.

The `dirname()` function need not be thread-safe.

## RETURN VALUE

The `dirname()` function shall return a pointer to a string as described above.

The `dirname()` function may modify the string pointed to by `path`, and may return a pointer to internal storage. The returned pointer might be invalidated or the storage might be overwritten by a subsequent call to `dirname()`. The returned pointer might also be invalidated if the calling thread is terminated.

## ERRORS

No errors are defined.

The following sections are informative.

## EXAMPLES

The following code fragment reads a pathname, changes the current working directory to the parent directory, and opens the file.

```
char *path = NULL, *pathcopy;
size_t buflen = 0;
ssize_t linelen = 0;
int fd;
linelen = getline(&path, &buflen, stdin);
path[linelen-1] = 0;
pathcopy = strdup(path);
if (chdir(dirname(pathcopy)) < 0) {
    ...
}
if ((fd = open(basename(path), O_RDONLY)) >= 0) {
    ...
    close (fd);
}
...
free (pathcopy);
```

free (path);

The EXAMPLES section of the basename() function (see basename()) includes a table showing examples of the results of processing several sample pathnames by the basename() and dirname() functions and by the basename and dirname utilities.

#### APPLICATION USAGE

The dirname() and basename() functions together yield a complete path name. The expression dirname(path) obtains the pathname of the directory where basename(path) is found.

Since the meaning of the leading "/" is implementation-defined, dirname("/foo) may return either "/" or '/' (but nothing else).

#### RATIONALE

None.

#### FUTURE DIRECTIONS

None.

#### SEE ALSO

basename()

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

The Shell and Utilities volume of POSIX.1?2017, basename, dirname

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