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

\$ man argz_add.3

argz_add(3) Library Functions Manual argz_add(3)

NAME

argz_add, argz_add_sep, argz_append, argz_count, argz_create, argz_create_sep, argz_delete, argz_extract, argz_insert, argz_next, argz_replace, argz_stringify - functions to handle an argz list

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <argz.h>

error_t argz_add(char **restrict argz, size_t *restrict argz_len,
                 const char *restrict str);

error_t argz_add_sep(char **restrict argz, size_t *restrict argz_len,
                    const char *restrict str, int delim);

error_t argz_append(char **restrict argz, size_t *restrict argz_len,
                   const char *restrict buf, size_t buf_len);

size_t argz_count(const char *argz, size_t argz_len);

error_t argz_create(char *const argv[], char **restrict argz,
                   size_t *restrict argz_len);

error_t argz_create_sep(const char *restrict str, int sep,
                       char **restrict argz, size_t *restrict argz_len);

void argz_delete(char **restrict argz, size_t *restrict argz_len,
                char *restrict entry);

void argz_extract(const char *restrict argz, size_t argz_len,
```

```

        char **restrict argv);

error_t argz_insert(char **restrict argz, size_t *restrict argz_len,
        char *restrict before, const char *restrict entry);

char *argz_next(const char *restrict argz, size_t argz_len,
        const char *restrict entry);

error_t argz_replace(char **restrict argz, size_t *restrict argz_len,
        const char *restrict str, const char *restrict with,
        unsigned int *restrict replace_count);

void argz_stringify(char *argz, size_t len, int sep);

```

DESCRIPTION

These functions are glibc-specific.

An `argz` vector is a pointer to a character buffer together with a length. The intended interpretation of the character buffer is an array of strings, where the strings are separated by null bytes (`'\0'`). If the length is nonzero, the last byte of the buffer must be a null byte.

These functions are for handling `argz` vectors. The pair `(NULL,0)` is an `argz` vector, and, conversely, `argz` vectors of length 0 must have null pointer. Allocation of nonempty `argz` vectors is done using `malloc(3)`, so that `free(3)` can be used to dispose of them again.

`argz_add()` adds the string `str` at the end of the array `*argz`, and updates `*argz` and `*argz_len`.

`argz_add_sep()` is similar, but splits the string `str` into substrings separated by the `delim` iter `delim`. For example, one might use this on a UNIX search path with delimiter `':'`.

`argz_append()` appends the `argz` vector `(buf, buf_len)` after `(*argz, *argz_len)` and updates `*argz` and `*argz_len`. (Thus, `*argz_len` will be increased by `buf_len`.)

`argz_count()` counts the number of strings, that is, the number of null bytes (`'\0'`), in `(argz, argz_len)`.

`argz_create()` converts a UNIX-style argument vector `argv`, terminated by `(char *) 0`, into an `argz` vector `(*argz, *argz_len)`.

`argz_create_sep()` converts the null-terminated string `str` into an `argz` vector `(*argz, *argz_len)` by breaking it up at every occurrence of the separator `sep`.

`argz_delete()` removes the substring pointed to by `entry` from the `argz` vector `(*argz, *argz_len)` and updates `*argz` and `*argz_len`.

`argz_extract()` is the opposite of `argz_create()`. It takes the `argz` vector `(argz, argz_len)`

and fills the array starting at `argv` with pointers to the substrings, and a final NULL, making a UNIX-style argv vector. The array `argv` must have room for `argz_count(argz, argz_len) + 1` pointers.

`argz_insert()` is the opposite of `argz_delete()`. It inserts the argument entry at position `pos` before into the `argz` vector (`*argz`, `*argz_len`) and updates `*argz` and `*argz_len`. If `pos` is `NULL`, then entry will inserted at the end.

`argz_next()` is a function to step through the `argz` vector. If `entry` is `NULL`, the first entry is returned. Otherwise, the entry following `entry` is returned. It returns `NULL` if there is no following entry.

argz_replace() replaces each occurrence of str with with, reallocating argz as necessary.

If replace_count is non-NULL, *replace_count will be incremented by the number of replacements.

`argz_stringify()` is the opposite of `argz_create_sep()`. It transforms the `argz` vector into a normal string by replacing all null bytes (`'\0'`) except the last by `sep`.

RETURN VALUE

All `argz` functions that do memory allocation have a return type of `error_t` (an integer type), and return 0 for success, and `ENOMEM` if an allocation error occurs.

ATTRIBUTES

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

[illegible]

Interface	Attribute	Value
...	...	...

[illegible]

? argz_add(), argz_add_sep(), argz_append(), argz_count(), ? Thread safety ? MT-Safe ?

? argz_create(), argz_create_sep(), argz_delete(), ? ? ?

? argz_extract(), argz_insert(), argz_next(), argz_replace(), ? ? ?

? argz_stringify()	?	?	?
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[illegible]

STANDARDS

GNU.

BUGS

Argz vectors without a terminating null byte may lead to Segmentation Faults.

SEE ALSO

envz_add(3)

