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

$ man duplocale.3

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

NAME

duplocale - duplicate a locale object

SYNOPSIS

#include <locale.h>

locale_t duplocale(locale_t locobj);

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

duplocale():

Since glibc 2.10:

_XOPEN_SOURCE >= 700

Before glibc 2.10:

_GNU_SOURCE

DESCRIPTION

The duplocale() function creates a duplicate of the locale object re?

ferred to by locobj.

If locobj is LC_GLOBAL_LOCALE, duplocale() creates a locale object con?

taining a copy of the global locale determined by setlocale(3).

RETURN VALUE

On success, duplocale() returns a handle for the new locale object. On error, it returns (locale_t) 0, and sets errno to indicate the cause of the error.

ERRORS

ENOMEM Insufficient memory to create the duplicate locale object.

VERSIONS

The duplocale() function first appeared in version 2.3 of the GNU C li? brary.

CONFORMING TO

POSIX.1-2008.

NOTES

Duplicating a locale can serve the following purposes:

* To create a copy of a locale object in which one of more categories are to be modified (using newlocale(3)).
* To obtain a handle for the current locale which can used in other functions that employ a locale handle, such as toupper_l(3). This is done by applying duplocale() to the value returned by the follow? ing call:

```
loc = uselocale((locale_t) 0);
```

This technique is necessary, because the above uselocale(3) call may return the value LC_GLOBAL_LOCALE, which results in undefined behav? ior if passed to functions such as toupper_l(3). Calling duplo? cale() can be used to ensure that the LC_GLOBAL_LOCALE value is con? verted into a usable locale object. See EXAMPLES, below.

Each locale object created by duplocale() should be deallocated using freelocale(3).

EXAMPLES

The program below uses uselocale(3) and duplocale() to obtain a handle for the current locale which is then passed to toupper_l(3). The pro? gram takes one command-line argument, a string of characters that is converted to uppercase and displayed on standard output. An example of its use is the following:

```
$ ./a.out abc
```

```
        ABC
```

Program source

```
    #define _XOPEN_SOURCE 700
    #include <ctype.h>
    #include <stdio.h>
    #include <stdlib.h>
    #include <locale.h>
    #define errExit(msg)    do { perror(msg); exit(EXIT_FAILURE); \
                            } while (0)
    int
    main(int argc, char *argv[])
    {
        locale_t loc, nloc;
        if (argc != 2) {
            fprintf(stderr, "Usage: %s string\n", argv[0]);
            exit(EXIT_FAILURE);
        }
        /* This sequence is necessary, because uselocale() might return
           the value LC_GLOBAL_LOCALE, which can't be passed as an
           argument to toupper_l() */
        loc = uselocale((locale_t) 0);
        if (loc == (locale_t) 0)
            errExit("uselocale");
        nloc = duplocale(loc);
        if (nloc == (locale_t) 0)
            errExit("duplocale");
        for (char *p = argv[1]; *p; p++)
            putchar(toupper_l(*p, nloc));
        printf("\n");
        freelocale(nloc);
        exit(EXIT_SUCCESS);
    }
```

SEE ALSO

freelocale(3), newlocale(3), setlocale(3), uselocale(3), locale(5), lo?
cale(7)

COLOPHON

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