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

\$ 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 library.

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 or more categories are to be modified (using `newlocale(3)`).
- * To obtain a handle for the current locale which can be 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 following 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 behavior if passed to functions such as `toupper_l(3)`. Calling `duplocale()` can be used to ensure that the `LC_GLOBAL_LOCALE` value is converted 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 program 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), locale(7)

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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DUPLOCALE(3)