



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

\$ man nl_langinfo.3p

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

nl_langinfo, nl_langinfo_l ? language information

SYNOPSIS

```
#include <langinfo.h>

char *nl_langinfo(nl_item item);

char *nl_langinfo_l(nl_item item, locale_t locale);
```

DESCRIPTION

The `nl_langinfo()` and `nl_langinfo_l()` functions shall return a pointer to a string containing information relevant to the particular language or cultural area defined in the current locale, or in the locale represented by `locale`, respectively (see `<langinfo.h>`). The manifest constant names and values of `item` are defined in `<langinfo.h>`. For example:

```
nl_langinfo(ABDAY_1)
```

would return a pointer to the string "Dom" if the identified language was Portuguese, and "Sun" if the identified language was English.

```
nl_langinfo_l(ABDAY_1, loc)
```

would return a pointer to the string "Dom" if the identified language of the locale represented by loc was Portuguese, and "Sun" if the identified language of the locale represented by loc was English.

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

The behavior is undefined if the locale argument to `nl_langinfo_l()` is the special locale object `LC_GLOBAL_LOCALE` or is not a valid locale object handle.

RETURN VALUE

In a locale where langinfo data is not defined, these functions shall return a pointer to the corresponding string in the POSIX locale. In all locales, these functions shall return a pointer to an empty string if item contains an invalid setting.

The application shall not modify the string returned. The pointer returned by `nl_langinfo()` might be invalidated or the string content might be overwritten by a subsequent call to `nl_langinfo()` in any thread or to `nl_langinfo_l()` in the same thread or the initial thread, by subsequent calls to `setlocale()` with a category corresponding to the category of item (see `<langinfo.h>`) or the category `LC_ALL`, or by subsequent calls to `uselocale()` which change the category corresponding to the category of item. The pointer returned by `nl_langinfo_l()` might be invalidated or the string content might be overwritten by a subsequent call to `nl_langinfo_l()` in the same thread or to `nl_langinfo()` in any thread, or by subsequent calls to `freelocale()` or `newlocale()` which free or modify the locale object that was passed to `nl_langinfo_l()`. The returned pointer and the string content might also be invalidated if the calling thread is terminated.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

Getting Date and Time Formatting Information

The following example returns a pointer to a string containing date and time formatting information, as defined in the `LC_TIME` category of the

current locale.

```
#include <time.h>
#include <langinfo.h>
...
strftime(datestring, sizeof(datestring), nl_langinfo(D_T_FMT), tm);
...
```

APPLICATION USAGE

The array pointed to by the return value should not be modified by the program, but may be modified by further calls to these functions.

RATIONALE

The possible interactions between internal data used by `nl_langinfo()` and `nl_langinfo_l()` are complicated by the fact that `nl_langinfo_l()` must be thread-safe but `nl_langinfo()` need not be. The various implementation choices are:

1. `nl_langinfo_l()` and `nl_langinfo()` use separate buffers, or at least one of them does not use an internal string buffer. In this case there are no interactions.
2. `nl_langinfo_l()` and `nl_langinfo()` share an internal per-thread buffer. There can be interactions, but only in the same thread.
3. `nl_langinfo_l()` uses an internal per-thread buffer, and `nl_langinfo()` uses (in all threads) the same buffer that `nl_langinfo_l()` uses in the initial thread. There can be interactions, but only when `nl_langinfo_l()` is called in the initial thread.

FUTURE DIRECTIONS

None.

SEE ALSO

`setlocale()`, `uselocale()`

The Base Definitions volume of POSIX.1-2017, Chapter 7, Locale, `<langinfo.h>`, `<locale.h>`, `<nl_types.h>`

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