

**NAME**

**form** - curses extension for programming forms

**SYNOPSIS**

```
#include <form.h>
```

**DESCRIPTION**

The **form** library provides terminal-independent facilities for composing form screens on character-cell terminals. The library includes: field routines, which create and modify form fields; and form routines, which group fields into forms, display forms on the screen, and handle interaction with the user.

The **form** library uses the **curses** libraries. To use the **form** library, link with the options **-lform** **-lcurses**.

Your program should set up the locale, e.g.,

```
setlocale(LC_ALL, "");
```

so that input/output processing will work.

A curses initialization routine such as **initscr** must be called before using any of these functions.

**Current Default Values for Field Attributes**

The **form** library maintains a default value for field attributes. You can get or set this default by calling the appropriate **set\_** or retrieval routine with a **NULL** field pointer. Changing this default with a **set\_** function affects future field creations, but does not change the rendering of fields already created.

**Routine Name Index**

The following table lists each **form** routine and the name of the manual page on which it is described. Routines flagged with "\*" are ncurses-specific, not present in SVr4.

<b>curses</b> Routine Name	Manual Page Name
current_field	<b>form_page</b> (3X)
data_ahead	<b>form_data</b> (3X)
data_behind	<b>form_data</b> (3X)
dup_field	<b>form_field_new</b> (3X)
dynamic_field_info	<b>form_field_info</b> (3X)
field_arg	<b>form_field_validation</b> (3X)

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field_back	<b>form_field_attributes(3X)</b>
field_buffer	<b>form_field_buffer(3X)</b>
field_count	<b>form_field(3X)</b>
field_fore	<b>form_field_attributes(3X)</b>
field_index	<b>form_page(3X)</b>
field_info	<b>form_field_info(3X)</b>
field_init	<b>form_hook(3X)</b>
field_just	<b>form_field_just(3X)</b>
field_opts	<b>form_field_opts(3X)</b>
field_opts_off	<b>form_field_opts(3X)</b>
field_opts_on	<b>form_field_opts(3X)</b>
field_pad	<b>form_field_attributes(3X)</b>
field_status	<b>form_field_buffer(3X)</b>
field_term	<b>form_hook(3X)</b>
field_type	<b>form_field_validation(3X)</b>
field_userptr	<b>form_field_userptr(3X)</b>
form_driver	<b>form_driver(3X)</b>
form_driver_w	<b>form_driver(3X)*</b>
form_fields	<b>form_field(3X)</b>
form_init	<b>form_hook(3X)</b>
form_opts	<b>form_opts(3X)</b>
form_opts_off	<b>form_opts(3X)</b>
form_opts_on	<b>form_opts(3X)</b>
form_page	<b>form_page(3X)</b>
form_request_by_name	<b>form_requestname(3X)*</b>
form_request_name	<b>form_requestname(3X)*</b>
form_sub	<b>form_win(3X)</b>
form_term	<b>form_hook(3X)</b>
form_userptr	<b>form_userptr(3X)</b>
form_win	<b>form_win(3X)</b>
free_field	<b>form_field_new(3X)</b>
free_fieldtype	<b>form_fieldtype(3X)</b>
free_form	<b>form_new(3X)</b>
link_field	<b>form_field_new(3X)</b>
link_fieldtype	<b>form_fieldtype(3X)</b>
move_field	<b>form_field(3X)</b>
new_field	<b>form_field_new(3X)</b>
new_fieldtype	<b>form_fieldtype(3X)</b>
new_form	<b>form_new(3X)</b>
new_page	<b>form_new_page(3X)</b>

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pos_form_cursor	<b>form_cursor(3X)</b>
post_form	<b>form_post(3X)</b>
scale_form	<b>form_win(3X)</b>
set_current_field	<b>form_page(3X)</b>
set_field_back	<b>form_field_attributes(3X)</b>
set_field_buffer	<b>form_field_buffer(3X)</b>
set_field_fore	<b>form_field_attributes(3X)</b>
set_field_init	<b>form_hook(3X)</b>
set_field_just	<b>form_field_just(3X)</b>
set_field_opts	<b>form_field_opts(3X)</b>
set_field_pad	<b>form_field_attributes(3X)</b>
set_field_status	<b>form_field_buffer(3X)</b>
set_field_term	<b>form_hook(3X)</b>
set_field_type	<b>form_field_validation(3X)</b>
set_field_userptr	<b>form_field_userptr(3X)</b>
set_fieldtype_arg	<b>form_fieldtype(3X)</b>
set_fieldtype_choice	<b>form_fieldtype(3X)</b>
set_form_fields	<b>form_field(3X)</b>
set_form_init	<b>form_hook(3X)</b>
set_form_opts	<b>form_field_opts(3X)</b>
set_form_page	<b>form_page(3X)</b>
set_form_sub	<b>form_win(3X)</b>
set_form_term	<b>form_hook(3X)</b>
set_form_userptr	<b>form_userptr(3X)</b>
set_form_win	<b>form_win(3X)</b>
set_max_field	<b>form_field_buffer(3X)</b>
set_new_page	<b>form_new_page(3X)</b>
unfocus_current_field	<b>form_page(3X)*</b>
unpost_form	<b>form_post(3X)</b>

## RETURN VALUE

Routines that return pointers return **NULL** on error, and set **errno** to the corresponding error-code returned by functions returning an integer. Routines that return an integer return one of the following error codes:

### **E\_OK**

The routine succeeded.

### **E\_BAD\_ARGUMENT**

Routine detected an incorrect or out-of-range argument.

**E\_BAD\_STATE**

Routine was called from an initialization or termination function.

**E\_CONNECTED**

The field is already connected to a form.

**E\_INVALID\_FIELD**

Contents of a field are not valid.

**E\_NOT\_CONNECTED**

No fields are connected to the form.

**E\_NOT\_POSTED**

The form has not been posted.

**E\_NO\_ROOM**

Form is too large for its window.

**E\_POSTED**

The form is already posted.

**E\_REQUEST\_DENIED**

The form driver could not process the request.

**E\_SYSTEM\_ERROR**

System error occurred (see **errno(3)**).

**E\_UNKNOWN\_COMMAND**

The form driver code saw an unknown request code.

**NOTES**

The header file **<form.h>** automatically includes the header files **<curses.h>** and **<eti.h>**.

In your library list, **libform.a** should be before **libncurses.a**; that is, you want to say **"-lform -lncurses"**, not the other way around (which would give you a link error when using static libraries).

**PORTABILITY**

These routines emulate the System V forms library. They were not supported on Version 7 or BSD versions.

The menu facility was documented in SVr4.2 in *Character User Interface Programming (UNIX SVR4.2)*.

It is not part of X/Open Curses.

Aside from ncurses, there are few implementations:

- ⊕ systems based on SVr4 source code, e.g., Solaris.
- ⊕ NetBSD curses.

A few functions in this implementation are extensions added for ncurses, but not provided by other implementations, e.g., **form\_driver\_w**, **unfocus\_current\_field**.

#### **AUTHORS**

Juergen Pfeifer. Manual pages and adaptation for ncurses by Eric S. Raymond.

#### **SEE ALSO**

**curses(3X)** and related pages whose names begin "form\_" for detailed descriptions of the entry points.

This describes **ncurses** version 6.2 (patch 20210220).