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# Forms

User Experience: Data Presentation



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# Introduction to Forms

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A form is group of related text fields. Unlike individual text fields, the fields in a form work together without any intervention from the developer. For example, you can tab from one field to another without writing any code or doing any work in Interface Builder.

## Organization of This Document

This topic discusses forms. [“How Forms Work”](#) (page 7) gives basic information on them. [“Setting a Form’s Appearance”](#) (page 9) describes how to modify the form’s appearance. [“Managing Form Entries”](#) (page 11) describes how to access and modify individual entries in a form.

A form is implemented as a type of matrix. For more information, see [Matrices](#).



# How Forms Work

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A form is group of related text fields. Unlike individual text fields, the fields in a form work together without any intervention from the developer. For example, you can tab from one field to another without writing any code or doing any work in Interface Builder.

A form is implemented as a `NSForm`, a subclass of `NSMatrix`, which contains a column of `NSFormCells`. Here's an example:

A screenshot of a form with four text fields. The fields are arranged vertically and are labeled "Name:", "Address:", "City:", and "State:". Each label is positioned to the left of its corresponding text field. The text fields are empty and have a light gray border. The background of the form is a light gray color with a subtle horizontal line pattern.

In `NSForm`'s methods, each `NSFormCell` is called an "entry" (or, sometimes, a "cell" or "item"). The left part of each entry is called the "title," and the right part is called the "text." Methods that refer to individual entries use an one-dimensional "index"; the indexing system starts at the top of the top of form, with zero.

Generally, you'll create and modify a form in Interface Builder. You can also create one programmatically with one of `NSForm`'s constructors. To add an entry to the end of a form, use `addEntry:`. To add an entry at a specific index, use `insertEntry:atIndex:`. To remove an entry, use `removeEntryAtIndex:`.

Any entry in the form can be "selected." When an entry is selected, its text area responds to the user's keystrokes. You can select an entry using the `selectTextAtIndex:` method, or you can let the user select an entry by clicking it with the mouse. Once an entry is selected, the user can select the next entry by pressing Tab, or select the previous entry by pressing Shift-Tab.

To initiate the action of a selected entry, the user presses Return or Enter. In response, the entry sends an action message to its target. If the entry has no target, the `NSForm` sends an action message to its target.



# Setting a Form's Appearance

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Generally, you'll use Interface Builder to modify the appearance of a form. But you can also modify it programmatically, with the methods described here.

Use these `NSForm` methods to set the appearance of all the entries in a form:

- To set the font of the entries' titles or text fields, use `setTitleFont:` or `setTextFont:`.
- To set the alignment of the entries' titles or text fields, use `setTitleAlignment:` or `setTextAlignment:`, with one of these as the argument: `NSRightTextAlignment`, `NSCenterTextAlignment`, or `NSLeftTextAlignment`.
- To set the spacing between entries (in pixels), use `setInterlineSpacing:`.
- To set the width of the entries (including their titles and text fields), use `setEntryWidth:`.
- To set how the text fields are outlined, use `setBordered:` and `setBezeled:`. A border is a thin line around the field. A bezel is an outline shaded to look three-dimensional. If both of these are set to `NO`, then the text fields are not outlined.

Use the `NSFormCell` methods in the following list to set the appearance of one of the entries in a form. You can access a particular entry with `cellAtIndex:`; for example, `[myForm cellAtIndex:1]`.

- To set the font of an entry's title or text field, use `setTitleFont:` or `setTextFont:`.
- To set the alignment of the entries' titles or text fields, use `setTitleAlignment:` or `setTextAlignment:`, with one of these as the argument: `NSRightTextAlignment`, `NSCenterTextAlignment`, or `NSLeftTextAlignment`.
- To set the title of an entry, use `setTitle:`. If you want the title to contained styled text, use `setAttributedTitle:`.



# Managing Form Entries

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NSForm has several methods for manipulating its entries. These methods dynamically add and remove entries:

- To add an entry, use `addEntry:` and `insertEntry:atIndex:.`
- To remove an entry, use `removeEntryAtIndex:.`

These methods find and select a particular entry:

- To get the index of the entry with a specified tag, use `indexOfCellWithTag:.`
- To get the index of the entry that contains the insertion point, use `indexOfSelectedItem.`
- To get the entry at a specified index, use `cellAtIndex:`
- To select all the text in a specified entry, use `selectTextAtIndex:.`



# Document Revision History

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This table describes the changes to *Forms*.

Date	Notes
2002-11-12	Revision history was added to existing topic. It will be used to record changes to the content of the topic.

