Text Fields

Cocoa > User Experience

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Introduction to Text Fields

Text Fields discusses the two types of text fields: regular and secure. A regular text field is a control that displays text that the user can select or edit. A secure text field lets the user enter secure data, like a password, so that others can't see it.

Who Should read This Document

You should read this document if you need to understand what text fields do and which classes implement them.

Organization of This Document

This document contains the following articles:

- "About Text Fields" (page 7) gives basic information on text fields.
- "About Secure Text Fields" (page 9) gives basic information on secure text fields.

See Also

For more information related to text fields, refer to the following documents:

- "Text Fields, Text Views, and the Field Editor" provides basic descriptions of these important text objects.
- "Using Keyboard Interface Control in Windows" describes how to set up text fields so the user can shift focus one to the next by pressing the Tab key.
- "Using the Window's Field Editor" describes the field editor, which is shared by all the text fields in a window, and which handles the editing of text in the field.

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About Text Fields

A text field is a control, instantiated from the class NSTextField, that displays text that the user can select or edit, and that sends its action message to its target when the user presses the Return key while editing. Like other controls, it also performs validation on its value when edited. If the value isn't valid it sends a special error action message to its target.

There are several types of objects that display text, and in some cases, a text field may not be the right choice. If you need to enter more than one line of text, use a text view. If you need several related text fields, use a form.

You can link text fields together in their window's key view loop, as described in "Implementing a Document-Based Application".

An NSTextField object can be assigned a delegate, which is then sent delegate messages by the window's field editor, such as `textShouldEndEditing:`. See "Using the Window's Field Editor" for more information on a window's field editor.

A text field allows you to set the attributes of its text, the text background color, whether it draws the background, and whether it draws a bezel or border around its text. Note that the text and background colors of selected text are configurable. The selected text color overrides any actual text color applied to the text while it's selected (this is generally the case with controls).

A text field is implemented by two classes: NSTextFieldCell, the cell which does most of the work, and NSTextField, the control that contains that cell. Every method in NSTextFieldCell has a cover in NSTextField. (A cover is a method of the same name that calls the original method.) An NSTextField can have a delegate that responds to such delegate methods as `textShouldEndEditing:`.

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About Secure Text Fields

A secure text field is a type of text field that hides its text from display or other access via the user interface. It's suitable for use as a password-entry object, or for any item in which a secure value must be kept. Your code can get the text field's string value using the standard `stringValue` method, but users can't see it or access it. It overrides many aspects of text editing to prevent passing of the object's value out by mechanisms available to the user (namely, through Cut, Copy, and Paste commands, and the Services facility). This object also overrides the text system's drawing routine to draw no text at all.

A secure text field is implemented by two classes:

- NSSecureTextFieldCell, a subclass of NSTextFieldCell and the cell which does most of the work
- NSSecureTextField, a subclass of NSTextField and the control that contains that cell

Every method in NSSecureTextFieldCell has a cover in NSSecureTextField. (A cover is a method of the same name that calls the original method.)

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Document Revision History

This table describes the changes to *Text Fields*.

Date	Notes
2004-02-09	Rewrote introduction and added an index.
2002-11-12	Revision history was added to existing topic. It will be used to record changes to the content of the topic.

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