

About This Book

This book describes the components supplied by Apple Computer, Inc., with QuickTime. A **component** is a code resource that is registered by the Component Manager. To understand components fully, you should be familiar with the material in the chapter “Component Manager” in *Inside Macintosh: More Macintosh Toolbox*, which describes how to build a component.

This book provides a complete technical reference to movie controller components, standard image-compression dialog components, image compressor components, sequence grabber components, sequence grabber channel components, sequence grabber panel components, video digitizer components, movie data exchange components, derived media handler components, clock components, and preview components.

You should read this book if you are developing an application that uses QuickTime components, or if you are developing a component that will be managed by the Component Manager. Whether you are developing a component or an application that uses components, you need to know how to call component functions. See the chapter “Component Manager” in *Inside Macintosh: More Macintosh Toolbox* for information on using components. If you are developing a component, you should also read the material in that chapter that describes how to build a component.

Each of these chapters discusses the features provided by a component type as well as the interface supported by components of that type. The interfaces are formatted for use by application developers. If you are developing a component, you must design and implement your component in a way that satisfies this interface.

If you are developing an application that can play movies, you should consider using movie controller components to manage your movie user interface. To learn about the capabilities of movie controllers, read the chapter “Movie Controller Components.” If you are developing a movie controller component, the chapter also describes the interfaces that your component must support.

If you want to use a standard image-compression dialog component in your application, you should read the chapter “Standard Image-Compression Dialog Components.” If you want to create your own standard image-compression dialog component, you should be familiar with all of the information in that chapter.

If you are developing an image compressor component, you should read all the material in the chapter “Image Compressor Components.”

If you are writing an application that needs to acquire data from sources external to the Macintosh computer, or if you are developing a sequence

grabber channel component, you should read the chapter “Sequence Grabber Components.”

If you are developing a sequence grabber channel component, you should also read the chapter “Sequence Grabber Channel Components.”

If you plan to create a sequence grabber panel component, you should read the chapter “Sequence Grabber Panel Components.”

If you want to develop or use a video digitizer component, you should read the chapter “Video Digitizer Components.”

If you plan to create either movie data import or movie data export components, or if you are writing an application that uses components of this type, you should read the chapter “Movie Data Exchange Components.”

If you plan to develop a derived media handler component, you should read the chapter “Derived Media Handler Components.”

If you want to develop your own clock component for use by the Movie Toolbox, you should read the chapter “Clock Components,” which describes what you must do to create a clock component.

If you want to develop your own preview component, you should read the chapter “Preview Components,” which tells what to do to create a preview component.

If you are going to play movies or compress images, you should be familiar with QuickDraw and Color QuickDraw, described in *Inside Macintosh: Imaging*. If you are going to create QuickTime movies, you should be familiar with the Sound Manager, described in *Inside Macintosh: More Macintosh Toolbox*, and with the human interface guidelines, described in *Macintosh Human Interface Guidelines*.

The companion to this book, *Inside Macintosh: QuickTime*, describes QuickTime, an extension of the Macintosh system software that enables you to integrate time-based data into mainstream Macintosh applications. That book also provides a complete technical reference to the Movie Toolbox, the Image Compression Manager, and the movie resource formats.

Format of a Typical Chapter

Almost all chapters in this book follow a standard structure. For example, the chapter “Movie Controller Components” contains these sections:

- “About Movie Controller Components.” This section provides an overview of the features provided by movie controller components.
- “Using Movie Controller Components.” This section describes the tasks you can accomplish using movie controller components. It describes how to use the most common functions, gives related user interface information, provides code samples, and supplies additional information.

- “Movie Controller Components Reference.” This section provides a complete reference to movie controller components by describing the constants, data structures, and functions that they use. Each function description also follows a standard format, which gives the function declaration and description of every parameter of the function. Some function descriptions also give additional descriptive information, such as result codes.
- “Summary of Movie Controller Components.” This section provides the C interface, as well as the Pascal interface, for the constants, data structures, functions, and result codes associated with movie controller components.

Conventions Used in This Book

Inside Macintosh uses various conventions to present information. Words that require special treatment appear in specific fonts or font styles. Certain information, such as parameter blocks, uses special formats so that you can scan it quickly.

Special Fonts

All code listings, reserved words, and the names of actual data structures, constants, fields, parameters, and functions are shown in Courier (this is Courier).

Words that appear in **boldface** are key terms or concepts and are defined in the glossary.

Types of Notes

There are several types of notes used in this book.

Note

A note like this contains information that is interesting but possibly not essential to an understanding of the main text. (An example appears on page 2-24.) ♦

IMPORTANT

A note like this contains information that is essential for an understanding of the main text. (An example appears on page 5-87.) ▲

▲ WARNING

Warnings like this indicate potential problems that you should be aware of as you design your application. Failure to heed these warnings could result in system crashes or loss of data. (An example appears on page 5-39.) ▲

Development Environment

The system software functions described in this book are available using C, Pascal, or assembly-language interfaces. How you access these functions depends on the development environment you are using. This book shows system software functions in their C interface using the Macintosh Programmer's Workshop (MPW) version 3.2.

All code listings in this book are shown in C. They show methods of using various functions and illustrate techniques for accomplishing particular tasks. All code listings have been compiled and, in most cases, tested. However, Apple does not intend that you use these code samples in your application.

For More Information

APDA is Apple's worldwide source for over three hundred development tools, technical resources, training products, and information for anyone interested in developing applications on Apple platforms. Customers receive the quarterly *APDA Tools Catalog* featuring all current versions of Apple development tools and the most popular third-party development tools. Ordering is easy; there are no membership fees, and application forms are not required for most of our products. APDA offers convenient payment and shipping options, including site licensing.

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P R E F A C E

If you provide commercial products and services, call 408-974-4897 for information on the developer support programs available from Apple.

For information on registering signatures, file types, Apple events, and other technical information, contact

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