

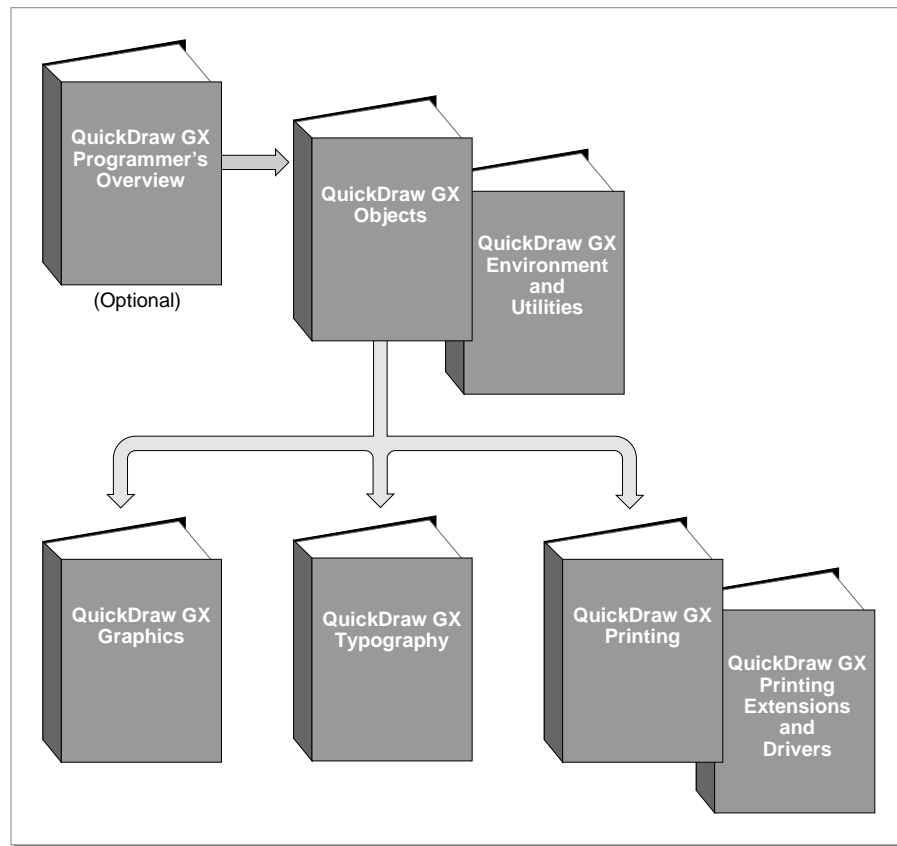
About This Book

QuickDraw GX is an integrated, object-based approach to graphics programming on Macintosh computers. This book, *Inside Macintosh: QuickDraw GX Printing Extensions and Drivers*, describes how to design and develop printing extensions and printer drivers for use with QuickDraw GX.

For application programming purposes, QuickDraw GX augments the capabilities of some of the Macintosh system software managers documented in other parts of *Inside Macintosh*. Information in this book specifies how to make your printer driver compatible with applications that use the Macintosh Printing Manager, which is described in *Inside Macintosh: Imaging With QuickDraw*.

This book is necessary if you are developing a printing extension or printer driver for use with QuickDraw GX. Before reading this book, you should already be familiar with how QuickDraw GX printing works, as described in *Inside Macintosh: QuickDraw GX Printing*.

For more information about programming with QuickDraw GX, you need to refer to the other QuickDraw GX books in the *Inside Macintosh* suite, including *Inside Macintosh: QuickDraw GX Objects*, *Inside Macintosh: QuickDraw GX Graphics*, and *Inside Macintosh: QuickDraw GX Typography*. Figure P-1 shows the suggested reading order for the QuickDraw GX books. A pictorial overview of *Inside Macintosh*, including the QuickDraw GX suite of books, appears on the inside back cover.

Figure P-1 Roadmap to the QuickDraw GX suite of books

What to Read

This book is intended for developers who are interested in enhancing the printing capability of Macintosh systems by writing printing extensions and for developers who are writing printer drivers for use with QuickDraw GX.

Chapter 1, “Introduction to Printing Extensions and Printer Drivers,” provides an overview of the QuickDraw GX printing architecture and how printing extensions and printer drivers work within the QuickDraw GX framework, including a description of how you use printing messages to implement your extensions and drivers.

Chapter 2, “Printing Extensions,” describes what printing extensions are and how they work. This chapter provides a tutorial walk-through of a simple printing extension, including descriptions of the code and resources used to implement the extension.

Chapter 3, “Printer Drivers,” describes what printer drivers are and how they work. This chapter provides a tutorial walk-through of a printer driver, including descriptions of the code and resources used to implement the printer.

Chapter 4, “Printing Messages,” provides a complete reference to the messages that you can override to implement printing extensions and printer drivers. This chapter also provides a complete reference to the constants and data types that you use with the printing messages.

Chapter 5, “Printing Functions for Message Overrides,” provides a complete reference to the QuickDraw GX functions that you can call from within your printing message overrides. This chapter also provides a complete reference to the constants and data types that you use with the printing functions.

Chapter 6, “Printing Resources,” provides a complete reference to the resources that you can use to implement printing extensions and printer drivers. This chapter also provides a complete reference to the constants and data types that QuickDraw GX provides to represent the resources.

Chapter Organization

This book contains an introductory chapter, two tutorial chapters, and three reference chapters. Each of the tutorial chapters follows the same structure. For example, the chapter “Printing Extensions” contains these major sections:

- “About Printing Extensions.” This section provides an overview of printing extensions.
- “Writing Printing Extensions.” This section describes how to develop a printing extension. It uses a detailed walk-through of a sample extension to provide code examples.
- “Using Resources in Printing Extensions.” This section describes the resources that you use to implement a printing extension and provides examples of these resources from the sample program.

The three reference chapters follow a standard general structure. For example, the chapter “Printing Functions for Message Overrides” contains these major sections:

- “About The Printing Functions.” This sections provides an overview of the printing functions that you can call from within your implementation of a printing message override.
- “Using The Printing Functions.” This section describes how you can use the printing messages in your message overrides for various purposes. It describes how to use the most common functions, gives related user-interface information, provides code samples, and supplies additional information.

- “Printing Functions Reference.” This section provides a complete reference to the printing functions that you can use in message overrides by describing the functions along with the constants and data types that you use with them. Each function description follows a standard format, which gives the function declaration; a description of every parameter; the function result, if any; and a list of result codes. Most function descriptions give additional information about using the function and include cross-references to related information elsewhere. Each function description also includes a list of the error codes that can be returned by the function as a result.
- “Summary of Printing Functions.” This shows the C interface for the printing functions and their associated constants and data types.

Conventions Used in This Book

This book uses various conventions to present certain types of information.

Special Fonts

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

When new terms are introduced, they are in **boldface**. These terms are also defined in the glossary.

Types of Notes

There are several types of notes used in this book.

Note

A note formatted like this contains information that is interesting but possibly not essential to an understanding of the main text. The wording of the title may say something more descriptive than just “Note,” for example, “Terminology Note.” (An example appears on page 2-3.) ♦

IMPORTANT

A note like this contains information that is especially important. (An example appears on page 2-11.) ▲

▲ WARNING

Warnings like this indicate potentially serious problems that you should be aware of as you design your application. Failure to heed these warnings could result in system crashes and loss of data. (An example appears on page 3-23.) ▲

Numerical Formats

Hexadecimal numbers are shown in this format: 0x0008.

The numerical values of constants are shown in decimal, unless the constants are flag or mask elements that can be summed, in which case they are shown in hexadecimal.

Type Definitions for Enumerations

Enumeration declarations in this book are commonly followed by a type definition that is not strictly part of the enumeration. You can use the type to specify one of the enumerated values for a parameter or field. The type name is usually the singular of the enumeration name, as in the following example:

```
enum gxDashAttributes {
    gxBendDash          = 0x0001,
    gxBreakDash         = 0x0002,
    gxClipDash          = 0x0004,
    gxLevelDash         = 0x0008,
    gxAutoAdvanceDash = 0x0010
};
typedef long gxDashAttribute;
```

Illustrations

This book uses several conventions in its illustrations.

In illustrations that show object properties, properties that are object references are in *italics>*.

In order to focus attention on the key part of some drawings, other parts are printed in gray, rather than black.

Objects in diagrams, whether shown with their properties or without, are represented by distinctive icons, such as these:



See, for example, Figure 3-2 on page 3-21.

Development Environment

The QuickDraw GX functions described in this book are available using C interfaces. How you access these functions depends on the development environment you are using.

Code listings in this book are shown in ANSI C. They suggest methods of using various functions and illustrate techniques for accomplishing particular tasks. Although most code listings have been compiled and tested, Apple Computer, Inc., does not intend for you to use these code samples in your applications.

This book describes two sample programs in detail. The sample printing extension, the backwash program, draws a background picture on each printing page. The sample printer driver implements QuickDraw GX printing for the ImageWriter II printer. The source code for these programs is found in the Samples folder that is included in the QuickDraw GX release.

Developer Products and Support

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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