Preface

Java Look and Feel Design Guidelines: Advanced Topics provides guidelines for anyone designing user interfaces for **applications** written in the Java™ programming language. In particular, this book offers design guidelines for applications that use the Java look and feel. This book supplements *Java Look and Feel Design Guidelines*, 2d ed. For details on that book, see Related Books.

Although some topics in *Java Look and Feel Design Guidelines: Advanced Topics* apply only to certain types of applications, most topics apply to all applications that use the Java look and feel.

Who Should Use This Book

Primarily, this book addresses the **designer** who chooses an application's user-interface elements, lays them out in a set of components, and designs the user interaction model for an application. This book should also prove useful for software developers, technical writers, graphic artists, production and marketing specialists, and testers who help create applications that use the Java look and feel.

Java Look and Feel Design Guidelines: Advanced Topics focuses on design issues and human-computer interaction in the context of the Java look and feel. For information about technical aspects of the Java Foundation Classes (**JFC**), visit the JFC and Swing Connection web sites:

- `http://java.sun.com/products/jfc`
- `http://java.sun.com/products/jfc/tsc`

The guidelines in this book are appropriate for GUI applications that run on personal computers and network computers. These guidelines are not intended for software that runs on consumer electronic devices, such as wireless telephones or personal digital assistants (PDAs).

How to Use This Book

This book is intended to be read in its entirety or to be consulted as a reference on particular topics. The information in this book is easier to understand if you first read *Java Look and Feel Design Guidelines*, 2d ed. If you read only

particular topics in this book, you should also see any corresponding topics in that book.

This book assumes that you are familiar with the terms and concepts in _Java Look and Feel Design Guidelines_, 2d ed., which is available in printed form at bookstores and as hypertext at the following web address:

`http://java.sun.com/products/jlf`

In addition, this book assumes that you are using the default Java look and feel theme, as described in Chapter 4 of _Java Look and Feel Design Guidelines_, 2d ed.

What Is in This Book

This book contains two main parts--
"General Topics" and "Special Topics."

Part One, "General Topics," consists of chapters whose user interface guidelines apply to most applications.

- **Chapter 1, "Introduction,"** explains why a consistent look and feel is important in applications and describes characteristics of well-designed applications.
- **Chapter 2, "Windows,"** defines user-interface objects and then describes various types of windows. In addition, the chapter describes how to choose the right window type, design window elements, set the state of windows, and handle multiple windows.
- **Chapter 3, "Menus,"** provides guidelines for designing menu elements, common menus (such as File, Edit, and Help), and contextual menus. The chapter also provides guidelines for assigning mnemonics and keyboard shortcuts to menu items.
- **Chapter 4, "Behavior,"** discusses modes of user interaction, multiple selection, filtering, searching, and tool tips.
- **Chapter 5, "Idioms,"** describes how to use sets of JFC components to achieve a standardized appearance and behavior. In particular, the chapter discusses idioms for tables, text fields, lists, and hierarchies of user-interface objects.
- **Chapter 6, "Responsiveness,"** discusses characteristics of responsive applications, describes how responsiveness relates to performance and to response delay, explains how to measure response delay, and describes ways to improve responsiveness and provide operational feedback to users.

Part Two, "Special Topics," consists of chapters whose guidelines apply only to applications that include wizards or alarms.

- **Chapter 7, "Wizards,"** introduces wizards and then describes how to decide whether your users need a wizard, how to design the layout and behavior of wizards, and what other factors to consider when designing wizards.
- **Chapter 8, "Events and Alarms,"** defines the terms "event" and "alarm" and then provides information on how to display alarm views (representations of alarms) and how to manipulate alarm views (for example, by sorting them at a user's request).

What Is Not in This Book

This book does not provide detailed discussions of human interface design principles or the design process, nor does it present information about **task analysis**--an essential concept in user interface design. For resources on these topics, see Related Books and "Related Books and Web Sites" in *Java Look and Feel Design Guidelines*, 2d ed.

Many of this book's guidelines can be applied to applications that use the Java look and feel to display text in any language. However, the usability of the book's guidelines and examples has been tested only with languages in which users read left to right. If you are designing for users who read right to left, use your judgment to decide whether this book's guidelines regarding layout are appropriate for your application.

Graphic Conventions

The screen shots in this book illustrate the use of JFC components in applications with the Java look and feel. Except where noted, measurements called out in screen shots are in pixels.

Throughout the text, symbols call your attention to Java look and feel design guidelines and to tips for implementing them.

☕ Java Look and Feel Standards

Requirements for the consistent appearance and compatible behavior of Java look and feel applications. To conform with the Java look and feel, applications must meet these requirements.

Java look and feel standards promote consistency and ease of use in applications. In addition, they support the creation of applications that are accessible to all users, including users with physical and cognitive limitations.

These guidelines require you to take actions that go beyond the provided appearance and behavior of the JFC components.

⌨ Implementation Tips

Technical information and useful tips of particular interest to the programmers who are implementing your application design.

Related Books

The preface to *Java Look and Feel Design Guidelines*, 2d ed., cites many references on topics such as fundamental principles of human interface design, design issues for specific (or multiple) platforms, and issues relating to internationalization and **accessibility**. This section does not repeat those references; instead, it lists only books to which this book refers.

- Sun Microsystems, Inc. *Java Look and Feel Design Guidelines*, 2d ed., Addison-Wesley, 2001. This book provides essential information for anyone involved in creating cross-platform GUI (graphical user interface) applications and applets in the Java programming language. In particular, the book offers design guidelines for software that uses the Java look and feel.
- Hackos, JoAnn T., and Janice C. Redish. *User and Task Analysis for Interface Design*. John Wiley & Sons, Inc., 1998. This book explains how to observe and interview users to gather the information you need to design your application.
- Johnson, Jeff. *GUI Bloopers: Don'ts and Do's for Software Developers and Web Designers*. Morgan Kaufman, 2000. This book provides examples of poor design in windows, inconsistent use of labels, and lack of parallelism in visual layout and grammar. The writer develops principles for achieving lucidity and harmony of look and feel.
- Wilson, Steve, and Jeff Kesselman. *Java Platform Performance: Strategies and Tactics*. Addison-Wesley, 2000. Intended to help software developers write high-performance software for the Java platform, this book describes the various qualities known as performance and describes how to attain and measure them.