

The Definitive Guide to Java Swing

Third Edition

JOHN ZUKOWSKI

Apress®

The Definitive Guide to Java Swing, Third Edition

Copyright © 2005 by John Zukowski

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without the prior written permission of the copyright owner and the publisher.

ISBN (pbk): 1-59059-447-9

Printed and bound in the United States of America 9 8 7 6 5 4 3 2 1

Trademarked names may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, we use the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Lead Editor: Steve Anglin

Technical Reviewer: Robert Castaneda

Editorial Board: Steve Anglin, Dan Appleman, Ewan Buckingham, Gary Cornell, Tony Davis, Jason Gilmore, Jonathan Hassell, Chris Mills, Dominic Shakeshaft, Jim Sumser

Assistant Publisher: Grace Wong

Project Manager: Beth Christmas

Copy Edit Manager: Nicole LeClerc

Copy Editor: Marilyn Smith

Production Manager: Kari Brooks-Copony

Production Editor: Ellie Fountain

Compositor: Susan Glinert

Proofreaders: Linda Seifert, Liz Welch

Indexer: Michael Brinkman

Artist: Kinetic Publishing Services, LLC

Cover Designer: Kurt Krames

Manufacturing Manager: Tom Debolski

Distributed to the book trade in the United States by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013, and outside the United States by Springer-Verlag GmbH & Co. KG, Tiergartenstr. 17, 69112 Heidelberg, Germany.

In the United States: phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders@springer-ny.com, or visit <http://www.springer-ny.com>. Outside the United States: fax +49 6221 345229, e-mail orders@springer.de, or visit <http://www.springer.de>.

For information on translations, please contact Apress directly at 2560 Ninth Street, Suite 219, Berkeley, CA 94710. Phone 510-549-5930, fax 510-549-5939, e-mail info@apress.com, or visit <http://www.apress.com>.

The information in this book is distributed on an “as is” basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the author(s) nor Apress shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this work.

The source code for this book is available to readers at <http://www.apress.com> in the Downloads section.

Contents at a Glance

About the Author	xix
About the Technical Reviewers	xxi
Acknowledgments	xxiii
Introduction	xxv
CHAPTER 1 Swing Overview	1
CHAPTER 2 Event Handling with the Swing Component Set	17
CHAPTER 3 The Model-View-Controller Architecture	59
CHAPTER 4 Core Swing Components	67
CHAPTER 5 Toggle Buttons	115
CHAPTER 6 Swing Menus and Toolbars	151
CHAPTER 7 Borders	211
CHAPTER 8 Root Pane Containers	235
CHAPTER 9 Pop-Ups and Choosers	267
CHAPTER 10 Layout Managers	343
CHAPTER 11 Advanced Swing Containers	377
CHAPTER 12 Bounded Range Components	419
CHAPTER 13 List Model Controls	451
CHAPTER 14 Spinner Model Controls	509
CHAPTER 15 Basic Text Components	521
CHAPTER 16 Advanced Text Capabilities	585
CHAPTER 17 Trees	623
CHAPTER 18 Tables	675
CHAPTER 19 Drag-and-Drop Support	729
CHAPTER 20 The Pluggable Look and Feel Architecture	741
CHAPTER 21 The Undo Framework	783

CHAPTER 22 Accessibility 805

APPENDIX UI Manager Properties 813

INDEX 847