

Expert C# 2005 Business Objects

Second Edition



Rockford Lhotka

Expert C# 2005 Business Objects, Second Edition

Copyright © 2006 by Rockford Lhotka

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-13 (pbk): 978-1-59059-632-6

ISBN-10 (pbk): 1-59059-632-3

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: Jonathan Hassell

Technical Reviewers: Dan Billingsley, Brant Estes, Petar Kozul

Editorial Board: Steve Anglin, Dan Appleman, Ewan Buckingham, Gary Cornell, Jason Gilmore,
Jonathan Hassell, James Huddleston, Chris Mills, Matthew Moodie, Dominic Shakeshaft, Jim Sumser,
Matt Wade

Project Manager: Kylie Johnston

Copy Edit Manager: Nicole LeClerc

Copy Editor: Damon Larson

Assistant Production Director: Kari Brooks-Copony

Production Editor: Laura Cheu

Compositor: Linda Weidemann, Wolf Creek Press

Proofreader: Elizabeth Berry

Indexer: John Collin

Artist: Kinetic Publishing Services, LLC

Cover Designer: Kurt Krames

Manufacturing Director: Tom Debolski

Distributed to the book trade worldwide by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013. Phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders-ny@springer-sbm.com, or visit <http://www.springeronline.com>.

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 Source Code section.

Contents at a Glance

About the Author	xv
About the Technical Reviewers	xvii
Acknowledgments	xix
Introduction	xxi
■ CHAPTER 1 Distributed Architecture	1
■ CHAPTER 2 Framework Design	35
■ CHAPTER 3 Business Framework Implementation	91
■ CHAPTER 4 Data Access and Security	159
■ CHAPTER 5 Completing the Framework	235
■ CHAPTER 6 Object-Oriented Application Design	321
■ CHAPTER 7 Using the CSLA .NET Base Classes	361
■ CHAPTER 8 Business Object Implementation	405
■ CHAPTER 9 Windows Forms UI	465
■ CHAPTER 10 Web Forms UI	513
■ CHAPTER 11 Web Services Interface	563
■ CHAPTER 12 Implementing Remote Data Portal Hosts	601
■ INDEX	621