专业认证考试丛书

ALL-IN-ONE

# MCAD/MCSD Visual C# .NET 认证考试指南

MCAD/MCSD Visual C# .NET Certification All-in-One Exam Guide

英文版

- 完全涵盖了 MCAD/MCSD Visual C# .NET 认证考试 70-315、70-316 和 70-320 的所有内容
- 既可以作为考试指南，也可以作为工作中的参考书
- 包含练习答案和深入讲解

包括 6 套模拟考试题以及 C# 在线习题

[美] Kenneth S. Lind　Marj Rempel　著

Mc Graw Hill

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## 内 容 简 介

本书是美国著名出版商 McGraw-Hill 出版的畅销认证系列丛书 All-in-One 中的一本，书中主要介绍了与 MCAD/MCSD Visual C# .NET 认证考试相关的最新考试信息，并提供了在 MCAD/MCSD Visual C# .NET 认证考试 70-315、70-316 和 70-320 中的资料。读者可以通过本书学习如何使用 Visual C# .NET 和 Visual Studio .NET 编程、创建 Windows 窗体并与控件协同工作等内容。本书在每一章的开始都会给出考试的重点内容，并在讨论过程中介绍考试技巧，此外，每章的结尾都有精心设计的大量练习题，为应试者提供极具价值的指导与参考。

本书是一本全面、权威的考试用书，适用于 MCAD/MCSD Visual C# .NET 认证考试的备考者及相关的技术人员。

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# DEDICATION

I dedicate this book to my son Andy
for his bravery in adversity and his love for humanity.
*Kenneth S. Lind*

I dedicate this book to my husband, Hans, and my son, Matthew,
both of whom display a love of life and family every day of their lives.
Marj Rempel

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**Marj Rempel** (MCSD, MCSE, MCT, CTT+, JCP, A+, CCNA) is a computer professor for Durham College. Since attending the University of Waterloo in the dark ages of computer processing, over 25 years ago, Marj has been involved in software development for mainframe computers and—for the past 15 years—in the PC arena using C, Java, Visual Basic, and Visual C# .NET. After spending three years teaching software development in the corporate field, she recently accepted her current position as a professor and specializes in teaching computer-related subjects. Marj can be reached at MarjRempel@hotmail.com.

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**James Keogh** teaches courses on Java Application Development, including J2EE, at Columbia University and is a member of the Java Community Process Program. He developed the first e-commerce track at Columbia and became its first chairperson. Jim spent more than a decade developing advanced systems for major Wall Street firms. He introduced PC programming nationally in his *Popular Electronics Magazine* column in 1982, just four years after the start up of Apple Computers in a Los Altos, CA garage. He was also a team member who built one of the first Windows applications by a Wall Street firm, featured by Bill Gates in 1986. Jim is the author of 54 books and several best-selling computer books. He is also a faculty member of Saint Peter's College Graduate School, Jersey City, NJ.

**Larry Chambers** (B.Sc., MCSD, MCSE) is a freelance technical writer who has contributed technical expertise as an editor and writer for various books. Larry works for a large Fortune 50 financial services firm in Winnipeg, Manitoba, Canada. Before that, Larry worked with a large consulting firm that provided consulting and services for Fortune 100 companies throughout Canada. Larry has been providing consulting, management, and technical expertise in the computer industry for the last 14 years. In his spare time, you can find him on a mountain bike somewhere in the wilderness.

## About LearnKey

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Andy Carroll was the copy editor who put Swedish-English techno speech into grammatically correct English. Andy also showed a very high degree of understanding for the software development process, catching many errors that had made their way through the editing process.

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*Kenneth S. Lind*

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*Marj Rempel*

# INTRODUCTION

Welcome to the *MCAD/MCSD Visual C# .NET™ Certification All-in-One Exam Guide*. This book has been specifically written to help you prepare for MCSD/MCAD certifications, but also to act as an on-the job reference after your achieve your certification. You'll find many hands-on labs and exercises within these pages, and much of the code is also included on the CD-ROM as an additional help.

Because many of the concepts addressed in the exams overlap somewhat, we've taken the approach of addressing the material covered by the exams by topic rather than by individual objective. While each objective is covered in the book, we feel that by exploring the topics behind the objectives, we can provide you with a more complete background for understanding the concepts. If you prefer to study by objective, Appendix B is a mapping document that will guide you to the appropriate chapter for each of the objectives.

There are several elements used within the text to help highlight information of specific interest:

- **Exam Tips** Give you hints and information about how Microsoft approaches the topic during the exam. These are an excellent tool for reviewing right before you take the test.
- **Notes** Provide a bit more insight into various topics. While you might not need this depth of information for the exam, it is information that may prove useful on the job.
- **Hands-On Exercises** There's no replacement for hands-on experience, and these exercises are designed to give you practical experience while preparing you for the exam. Be sure to work through them to help reinforce what you're reading.
- **Questions and Answers** There are hundreds of questions in this book/CD package, along with answers and explanations. By taking advantage of these self-assessment options, you can establish areas where you may need additional study, as well as practice facing the testing scenario.

## Why Certify?

Microsoft certification has a history of positive impact on career growth and salary increase. It is an accepted standard of qualification that corporations worldwide respect. With the shift toward integrated computing and the establishment of the .NET Framework, the role of the developer will gain visibility, and the MCSD and MCAD certifications will be a key differentiator for those working with the .NET technologies.

## MCAD vs. MCSD

According to Microsoft, candidates for the MCAD certification credential are professionals who use Microsoft technologies to develop and maintain department-level applications, components, web or desktop clients, or back-end data services, or who work in teams developing enterprise applications.

Comparatively, candidates for the MCSD certification are lead developers who design and develop leading-edge enterprise solutions with Microsoft development tools, technologies, platforms, and the Microsoft .NET Framework.

MCSD certification encompasses the skill set of the MCAD certification, and you may wish to pursue the MCAD as a step toward MCSD certification. You may even find that MCAD matches your career interests and plans more accurately than the MCSD track. Either way, certification is a valuable asset when building your career.

# MCSD Certification Requirements

Achieving the MCSD certification requires passing four core exams and one elective exam. The core exams are listed here.

NOTE: Please observe that the italicized exam names are those which are covered within this text.

# MCSD Core Exams

## Solution Architecture Exam (Required)

**Exam 70-300**–Analyzing Requirements and Defining .NET Solution Architectures

## Web Application Development Exams (One Required)

**Exam 70-305**–Developing and Implementing Web Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET

Or

***Exam 70-315**–Developing and Implementing Web Applications with Microsoft Visual C# .NET and Microsoft Visual Studio .NET*

## Windows Application Development Exams (One Required)

**Exam 70-306**–Developing and Implementing Windows-Based Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET

Or

***Exam 70-316**–Developing and Implementing Windows-Based Applications with Microsoft Visual C# .NET and Microsoft Visual Studio .NET*

## Web Services and Server Components Exams (One Required)

**Exam 70-310**–Developing XML Web Services and Server Components with Microsoft Visual Basic . NET and the Microsoft .NET Framework

Or

***Exam 70-320**–Developing XML Web Services and Server Components with Microsoft Visual C# and the Microsoft .NET Framework*

In addition to the core exams, you must pass one of the following elective exams:

- **Exam 70-229**–Designing and Implementing Databases with Microsoft SQL Server 2000, Enterprise Edition

- **Exam 70-230** – Designing and Implementing Solutions with Microsoft BizTalk Server 2000 Enterprise Edition
- **Exam 70-234** – Designing and Implementing Solutions with Microsoft Commerce Server 2000

## MCAD Certification Requirements

Microsoft's MCAD only requires three core exams and one elective, and permits the use of some exams as either core or elective credits.

## MCAD Core Exams

### Web Application Development Exams (One Required)

**Exam 70-305** – Developing and Implementing Web Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET
Or
***Exam 70-315** – Developing and Implementing Web Applications with Microsoft Visual C# .NET and Microsoft Visual Studio .NET*

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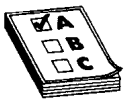
In addition to the core exams, you must pass one of the following elective exams:

- **Exam 70-229** – Designing and Implementing Databases with Microsoft SQL Server 2000, Enterprise Edition
- **Exam 70-234** – Designing and Implementing Solutions with Microsoft Commerce Server 2000

The following may be used for elective credit if they have not been used toward core exam credit.

- Exam 70-305
- Exam 70-306
- Exam 70-310
- Exam 70-315
- Exam 70-316
- Exam 70-320




EXAM TIP: Visit www.microsoft.com to get the latest certification information. Exams are subject to change without notice, so be sure to check this site frequently as you prepare for your exam.

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