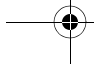
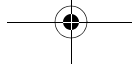


Enterprise Development with Visual Studio .NET, UML, and MSF

JOHN ERIK HANSEN AND CARSTEN THOMSEN

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ISBN (pbk): 1-59059-042-2

Printed and bound in the United States of America 10987654321

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Distributed to the book trade in the United States by Springer-Verlag New York, Inc., 175 Fifth Avenue, New York, NY 10010 and outside the United States by Springer-Verlag GmbH & Co. KG, Tiergartenstr. 17, 69112 Heidelberg, Germany.

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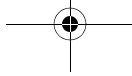
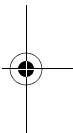
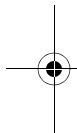
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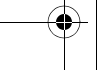
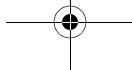
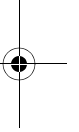
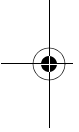
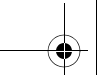
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*This book is dedicated to Tony Houghton
and Graham Potts, who showed me in those
long early days which end of a PC did what.
—Allan Mitchell*

*This book is dedicated to my wife, Inez, our children,
Lucy and Benedict, and our unborn baby boy,
due October 2002.
—Mark Allison*





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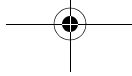
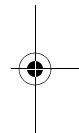
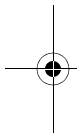
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Foreword

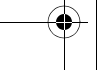
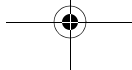
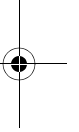
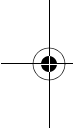
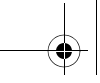
TODAY, DEVELOPERS ARE continuously being overloaded with new technologies, standards, and tools, which are all being developed to fulfill customer requirements. This puts tough challenges on developers who need to produce modern software, whether it is shrink-wrapped software, enterprise applications, or part of systems integration.

Therefore, large vendors like Microsoft put a lot of effort into describing best practices and guidelines for using these new technologies, and how you can use well-proven patterns with them. Because most projects that fail don't fail because of technology issues, focusing on planning, architecture, design, and the development process will have a positive impact on the success rate of application development projects. Frequently, the disciplines of modeling, testing, and analyzing the running application are only footnotes in projects. Even worse, magazines, Web sites, product documentation, and newsgroups are biased toward code snippets, samples, and so on.

This book describes the “enterprise” (a much overloaded term—shouldn't you test a non-enterprise application?) features of Microsoft Visual Studio .NET, not only from a product feature view, but also from a general perspective, explaining why you should use them and how. For example, using enterprise templates, you can customize and restrict Microsoft Visual Studio .NET to support the application architecture that your organization has chosen. This way, you can use the development in a *smart* way, use new technologies the *safe* way, and continue to use *solid* and *proven* practices in your application development projects.

Use this book as your practical guide for getting the best out of the enterprise features of Microsoft Visual Studio .NET, and it will improve the quality of your applications.

Jørgen Thyme
Microsoft Denmark
Copenhagen, February 2004



About the Authors

John Erik Hansen is a specialist in project management, business analysis, and UML analysis/modeling. In these fields, he is credited for his ability of ensuring project successes. He currently holds the MCSD and Rational Rose certifications, and a Graduate Diploma in Business Administration. Lately, John has been working as a consultant on projects all over Europe. He has 10 years of experience working as a project manager, consultant, Microsoft CTEC Trainer, business analyst, and programmer (of data warehousing, e-procurement, ASP, Visual Basic, and .NET applications).



John lives with his wife Karen and son Philip in Odense, Denmark. He enjoys traveling and is a passionate soccer fan.

Carsten Thomsen is a Microsoft MVP, a recognition he received in August 1999. He lives in his native Denmark and currently holds the MCSE, MCAD, and MCSD certifications. Carsten has been programming in Visual Basic for almost 12 years, and he specializes in data access, object-oriented analysis and design, and enterprise development.

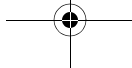
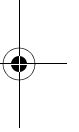
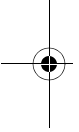
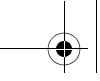


These days, Carsten is primarily focused on development with Visual Studio .NET, using MSE, UML, Visual Basic .NET, and C#, but he also enjoys working with Microsoft SharePoint Portal Server 2003, Microsoft Content Management Server 2002, and Microsoft BizTalk Server 2004.

Carsten is the author of *Database Programming with Visual Basic .NET* and *Database Programming with C#*, both from Apress.

Carsten and his girlfriend, Mia, live in Esbjerg on the west coast of Denmark. They have a 5-year old daughter, Caroline, and 2-year old daughter, Cecilie. Nicole, 10, is Carsten's oldest daughter, and she lives with her mother in Dublin, Ireland.

Carsten is now working as a .NET consultant mainly in London and Dublin, but he also does the odd .NET training job.

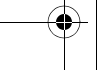
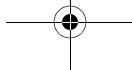
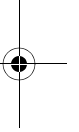
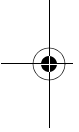
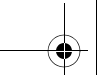


About the Technical Reviewer

Paul Besly has been producing software in various forms for about 20 years. Paul came through the classic SASD route to OO/UML, via C/C++/Visual Basic. He holds the MCSD.NET and MCT certifications.

Paul currently teaches OO design/patterns, UML, and .NET courses. As a very welcome part of this, he is also involved in a variety of mentoring activities. Prior to teaching, Paul spent many years producing software for flight simulators, road traffic systems, digital telephony, and other real-time software control systems. His other interests include playing ragtime guitar and rugby.





Acknowledgments

THIS BOOK IS based on the knowledge gained by us (the two authors) from working in the IT business over the last decade or so. Having said that, we also learned a fair few new tricks by writing this book, and that's really why we do it.

This book has been a long time coming due to various difficulties, but with the fantastic help we've had from the whole of the team at Apress and the private technical reviewers, we actually think that this is a much better book than if we had published it a year ago (or earlier), as originally scheduled.

These guys truly deserve special mention because of the time and effort they've put into the making of this book:

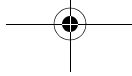
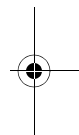
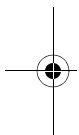
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On a personal note, I (Carsten Thomsen) would like to thank my closest family for being so understanding when spending all those extra hours on this book, and in particular as I went through a minor depression for a number of months in 2003.

John Erik Hansen (jha@project2.dk), Odense, Denmark

Carsten Thomsen (carstent@dotnetservices.biz), Esbjerg, Denmark

April 2004



Introduction

I came across some of the beta chapters of this book while searching the Internet for MSF information, and I used them as preparation for the MSF Practitioner exam. This book is a great practical approach to MSF and UML.

—Pocholo Reyes, MCSD, MCDBA, MCT, MSF; Consulting Manager,
Database Wizards Inc. (preyes@wizardsgroup.com)

...Bottom line, if they complete the exercises, they will have a good grasp of how to use the UML and code generation features of VEA. The set of exercises are quite useful, and I learned a lot just working through Chapter 17.

—Samuel Santiago (SSantiago@SoftiTeecture.com)

THIS BOOK IS ALL ABOUT using Visual Studio .NET (VS .NET) for creating enterprise solutions. Based on our experience, we've chosen to add the Unified Modeling Language (UML), for designing and documenting solutions, and the Microsoft Solutions Framework (MSF), for planning and managing projects.

Experienced developers, team leaders, and project managers who need a structured way of creating enterprise solutions will benefit from reading this book. In fact, parts of this book can be used by developers (experienced or not) and managers who want to know about MSF and UML in connection with .NET development. For most readers, this is a cover-to-cover book, but it can certainly be used as a reference guide whenever you need information about a particular tool or process.

We start out with an enterprise development overview chapter, followed by UML introduction and get-up-to-speed chapters. We next look at the various enterprise tools included with the VS .NET Enterprise Developer (VSED) and VS .NET Enterprise Architect (VSEA) editions, such as enterprise template projects, Visual SourceSafe (VSS), Visio for Enterprise Architects 2003 (VEA), Microsoft Application Center Test (ACT), and Visual Studio Analyzer. We then cover deployment. Next, we delve into two hands-on chapters that will show you how to analyze a project and model it using VEA, guiding you step-by-step through the process. In the final part of the book, we compare IBM Rational Rose XDE with VEA and compare the Rational Unified Process (RUP) with MSF. The final chapter examines MSF in detail.

Throughout this book, you'll find exercises that demonstrate the topic being discussed. You need VSEA to follow all of the examples in this book, although VSED is sufficient for most chapters.



Introduction

We welcome feedback from our readers. We can be reached at carstent@dotnetservices.biz or jha@project2.dk. We'll gladly answer any queries concerning this book and will respond as soon as possible (of course, depending on the volume of messages, this might not be immediately).

