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Foundations of BizTalk Server 2006

Empowering Productivity for the New BizTalk Developer

Daniel Woolston

Apress®

Foundations of BizTalk Server 2006



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Dedicated to Michelle, Aymee, and Michael.

Without the group hugs, funny faces, goofy dances, fart jokes, and an occasional impromptu mooning, my life would be empty and meaningless. You've given me balance and happiness beyond compare.

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About the Author



Author Daniel Woolston with his wife, Michelle

DANIEL WOOLSTON is the President and Senior Developer for Integrated Coding Inc. of Grand Rapids, Michigan (<http://www.integratedcoding.com>). He is currently working with one of the largest online retailers on the planet, helping to develop the next generation of customer-focused applications.

Daniel's software journey began in the late 1980s with the infamous Sinclair ZX80. His current ambitions involve developing .NET-centric integration applications utilizing the latest technologies and beyond. His work efforts have branched from Fortune 500 enterprise application development to pattern-driven project implementations on various corporate levels. He has years of experience in designing and distributing VB/VB.NET/C#/BizTalk development projects. Daniel recently authored *Pro Ajax and the .Net 2.0 Platform* (available from Apress, <http://www.apress.com>).

When Daniel isn't knee-deep in code, he can typically be found at the local hockey rink watching the Grand Rapids Griffins stomp all who would dare to take the ice. Daniel also keeps a running blog at <http://www.danwoolston.com>.

About the Technical Reviewer



STEPHEN KAUFMAN is a Principal Consultant with Microsoft Consulting Services and has been working with BizTalk since the original BizTalk CTP in 1999. In addition, he is an author, trainer, and speaker. He has written Microsoft Knowledge Base articles, a BizTalk tools whitepaper, and a number of other articles. He was a contributing author for the BizTalk Certification Exam 74-135. Stephen has spoken nationally at events such as Microsoft Developer Days and TechEd, as well as at a number of other conferences. He writes a blog focused on integration technologies at <http://blogs.msdn.com/skaufman>.

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Introduction

I have always been a fan of complexity. Some people fear and avoid it, but for some strange reason, I thrive on it. I'm a huge fan of puzzle games and typically have a Rubik's Cube well within reach to satiate my need for concentrated problem-solving. It's a strange obsession that many of you, my brothers and sisters in technology, share. We excel at coding and application integration because we feed on the detailed process by which we deliver our products. Many of the things that we accomplish may seem impossible at first, but numerous hours (and gallons of caffeine) later, we roll out a product or plan that we're proud to put our name on. And we do that because we love complexity.

I was drawn to BizTalk Server because I had heard many developers and architects say that the product was difficult to learn and had a deep level of intricacy. Few people were interested in learning the product, so I felt as if the gauntlet had been thrown. I told myself, "This truly is a product worth learning, if it's as hard as they say." Years later, I've found that it is, indeed, an excellent application deserving of obsession. I have also discovered that as you peel back the layers of BizTalk Server, it becomes a very intuitive product to use. This book will help you to do just that. We'll investigate BizTalk Server in manageable chunks, so that you're able to decipher and understand each of the individual puzzle pieces (or components) that, together, form the BizTalk Server 2006 product.

This book is written for those of you who have little or no knowledge of the product. You'll find that most of the examples in this book are relatively simple and can be completed in a fairly short amount of time. As the title implies, this book is geared toward providing a foundational base of knowledge of the application and its many components. The book is composed of 14 chapters, each building upon the lessons learned in the previous chapter:

- Chapter 1 introduces you to the product as a whole, with a brief discussion of the individual components.
- Chapter 2 covers XML technology for those readers who may not have had the opportunity to work with the markup language. XML is the backbone of BizTalk Server, and understanding it will pay dividends as you work through the chapter applications.
- Chapter 3 takes you through the BizTalk installation process. It's a friendlier process than you might expect, and you'll see why.
- Chapter 4 is a deeper look at BizTalk Server components and why and when you'll use them.
- Chapter 5 takes an overall look at the concept of messaging and its impact on BizTalk Server.
- Chapter 6 revisits XML technology with a deeper look at XML schemas and how they relate to messaging as a whole.

- Chapter 7 is a hands-on look at the BizTalk Mapper. You'll have an opportunity to transform messages from one format to another.
- Chapter 8 offers an exciting opportunity to work with BizTalk ports and locations. You'll take a look at the various methods for introducing messages into BizTalk Server.
- Chapter 9 continues the message routing discussion with BizTalk pipelines. You'll build an application that can slice and dice inbound messages, and deliver them to BizTalk Server in a manageable and consistent format.
- Chapter 10 introduces you to the all-powerful BizTalk orchestration. The orchestration is considered by many to be the powerhouse of the server product, and you'll have a chance to take one out for a spin.
- Chapter 11 covers some of the more advanced orchestration techniques, building on the lessons learned from the previous chapter.
- Chapter 12 addresses working with the business rules engine. We'll implement some dynamic logic enforcers that are called from within an orchestration.
- Chapter 13 discusses monitoring the activities taking place in your BizTalk Server implementation. You'll see how to use the tool commonly known as BAM (Business Activity Monitoring) to get an inside look at your data flow.
- Chapter 14 wraps things up with a discussion on deploying your BizTalk work out to the server itself.

After you have completed the individual lessons delivered through each of the chapters, I encourage you to follow up with *Pro BizTalk Server 2006* (available from Apress, <http://www.apress.com>) as your next step toward product mastery. It is my sincere hope that this book will help you toward that goal of mastery, and someday you'll look back on your integration career and find that this publication was the catalyst for starting something great.

Thank you so much for buying this book!

Daniel Woolston