

**Marco Cantù**

**Delphi 2009  
Handbook**

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More information on <http://www.marcocantu.com/dh2009>

# Preface

*To my wife Lella, with love, encouragement,  
passion, dedication, and patience*

This is a book about CodeGear Delphi 2009.

You won't find an introduction to Delphi programming, its Object Pascal language or its Visual Component Library in it. In this book you can read only about *new features of Delphi 2009 for Win32* in each of these areas.

The book covers Delphi 2009 Unicode support, the new language features (such as generics and anonymous methods), the improvements of the IDE, the new classes of the Run Time Library, the new components of the VCL (including the Ribbon control), and the extensions to the database architecture and the DataSnap multi-tier technology.

As usual for my books, I'm covering the theory but also showing you dozens of examples, you can download and play with on your computer. If you still don't own Delphi 2009, you can download the trial version and also look at the actual programs in action in a series of videos linked from the web page:

■ <http://www.marcocantu.com/dh2009/videos.html>

**Marco Cantù, Delphi 2009 Handbook**

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This book is a sequel to Delphi 2007 Handbook, as it doesn't repeat its content at all. If you are interested in new features of Delphi 2009 since Delphi 7 (or a similar old version), you can buy both of my Handbooks.

If you are looking for an introduction to Delphi, instead, you can refer to my “Essential Pascal” for the language foundations and to the books in “Mastering Delphi” series (in particular either “Mastering Delphi 7” or “Mastering Delphi 2005”). While my recent Handbooks and “Essential Pascal” are available on Lulu.com, the Mastering series was published in a more traditional way and can be found in physical or online bookstores.

You can find more details about all of my books at my personal website:

|| <http://www.marcocantu.com>

As usual, writing this book was quite an effort, and I have to thank many developers from the Delphi community who supported me in various ways, starting with the tech reviewers and Delphi product managers and R&D team members. A big thank you goes to my wife and kids for their patience and encouragement.

I hope you enjoy the result, like I've enjoyed writing it. And I hope you like Delphi 2009, one of the best versions of Delphi ever, as I did.

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# Introduction

First introduced by Borland on February 14<sup>th</sup> 1995, Delphi has a long and glorious history of success in the Windows development and client/server areas. With millions of applications written in its Object Pascal language, Delphi spawned an entire ecosystem of components, tools, magazines, books, and (of course) web sites and online resources.

Delphi is now in its 12<sup>th</sup> version, the 20<sup>th</sup> if you count all the way back to its predecessor Turbo Pascal<sup>1</sup>, which was first released 25 years ago. What's new in this version of Delphi is the company owning the product!

With the acquisition of the CodeGear division of Borland on July 1<sup>st</sup>, 2008, Delphi became a subsidiary of Embarcadero Technologies. This change of ownership happened quite late in the Delphi 2009 development cycle, so the only practical effect of the change is the inclusion of ER/Studio in the Architect version of the product. Since the start of the CodeGear division within Borland, though, there has been a renewed focus (and investment in terms of R&D, QA, and Docs) on Delphi, specifically in its Win32 version. That's why it is relevant to focus for a second on some higher-level *political* issues.

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<sup>1</sup> The current version of the Delphi compiler, in fact, is 20.00. This is highlighted by the value of the VER200 define, mentioned in the section “Compiler Version” at the beginning of Chapter 7.

## The Status of Delphi

As I've just mentioned, the creation of the CodeGear division and then the acquisition of that division by Embarcadero Technology is providing a new foundation for Delphi, and new funding for investing in the product. Even if not aggressively marketed, and out of the radar of most publications Delphi still has millions of active users, both in the ISV sector (where its deployment simplicity wins over frameworks-based solutions) and in business client/server environments, where the stability of an investment is worth more than the *coolness* of the platform.

It is true that the Delphi community is smaller than it was a few years back, and that part of it sticks with older versions of the product, but it is certainly still lively in many countries and has actually got back into a nice mood over the last year.

## Why Win32 Matters

If you read most of the IT press, follow blogs, or attend to conferences, it looks that only the latest technology (and the latest fad) are worth working on and everything else is either dead or dying away. This is far from true.

From COBOL development to mainframes, from AS/400 computers to DBF databases, there is a ton of legacy technology that's not only maintained but sees significant new investment. It might be for compatibility reasons, but it is also because companies prefer having a proven and reliable technology for their core business rather than risking their business over the most-recently hyped technology.

This doesn't mean, of course, that following trends, providing higher quality, and empowering users is not important. Quite the opposite. If you can keep delivering additional value on a solid foundations, you have a win-win situation. Looking at the Windows side of things, for example, Microsoft has certainly created a lot of value with its growing set of libraries and architectures based on the solid foundation of the .NET framework. On the other hand it is true that, despite the robustness and stability of the core, targeting the latest and best .NET technologies is like focusing on a fast moving target, which is not exactly the best thing when you need to build your

client/server application that will take a couple of years to create and you hope will last at least for the next ten years or so.

The other extreme is that of Micro ISV, small tools vendors, shareware developers, Internet utility builders. They are in the situation of short life span products and could certainly benefit for staying on the edge... but even they cannot rely on a large and even changing framework for deploying their applications. They need something that works on each and every Windows box out there. This is a situation in which Delphi shines in comparison to most other solutions. The only real exception is Visual C++, but (if you've never tried to do so) developing in it is not a RAD and OOP experience like .NET and VCL development are.

Visual C++ MFC library is only a thin layer on top of the Windows API, while Delphi provides what has been called a platform, with memory management and runtime services, a pretty large class library with lots of insight into user interface creation, Internet support, and database connectivity, to name only the most noticeable areas of the product.

Delphi does such a good job of producing native looking Windows applications such as Skype that there is rarely any visible sign that an application has been developed with Delphi.

## This Book

Having introduced the status of Delphi, it is about time to talk about this book. Like my recent “Delphi 2007 Handbook” this is not an all encompassing manual covering all of the features of Delphi, as this would probably require close to 4,000 pages<sup>2</sup>.

Despite its size, the focus of this book is uniquely on new features found in Delphi 2009, or at least added to Delphi since Delphi 2007 was released (as BlackFish SQL and some of the dbExpress metadata extensions were included in Delphi 2007 updates).

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2 This figure (4,000 pages) is my estimate of the amount of material I've written in books about Delphi over the last 13 years. That is, without considering chapters that were included in subsequent editions of my Mastering Delphi series.

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Needless to say I've given a central role to Unicode and to the core language changes (like generics and anonymous methods), but there is also material on updates to the RTL and the VCL, the improved support for Vista, the latest user interface controls, and an in-depth analysis of the improved dbExpress and new DataSnap 2009 multi-tier capabilities of the product.

As in my past books, there is a lot of theory and overview material mixed with countless examples, readily available online at:

▮ <http://www.marcocantu.com/dh2009>

As I mentioned in the “Preface”, I've also created short demonstration videos (covering how the program works, not how it was written) for most of the examples in the book, available online and listed at:

▮ <http://www.marcocantu.com/dh2009/videos.html>

Having published this book through Lulu.com, I could shape it the way I like most, get the help of editors and reviewers I trust, and (hopefully) make it more valuable for you while keeping the price lower than through a traditional channel. When I published “Delphi 2007 Handbook”, it was my first experience of publishing via Lulu.com. Now I've learned from mistakes, streamlined some operations, and have reduced some of the publishing headaches to fully focus on writing for quite some time. I hope you find this effort valuable!

## The Author

For those of you new to my books, and for those who haven't read a recent one, my name is Marco Cantù, and I've been in the “Delphi book writing” business since the first version of the product, when I released the original “Mastering Delphi” (a hefty tome of 1,500 pages). This was not my first writing experience, as I had previously written works on Borland C++ and the Object Windows Library.

Over the last few years, beside my continuous involvement in the Delphi community, I've also devoted a lot of time to XML-related technologies and XSLT, with web services (including SOAP and REST implementations), JavaScript and AJAX, and other Web 2.0 technologies. After a break, I got back to writing by self-publishing my books, not only on Delphi, as I ended up also with a volume on social networks.

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Beside writing, I keep myself busy with consulting (mostly on applications architectures), helping selling Delphi in Italy, doing code reviews, Delphi mentoring, and general consulting for developers.

I'm also a frequent speaker at Delphi and general developer conferences, including the new online CodeGear conferences. If you are interested in inviting me to speak at a public event or give a training session (on Delphi 2009 or any advanced subject) at your company location, feel free to send me a note over email.

## Contact Information

Finally, here is some contact information, with my main web sites (my blog, my not-so-up-do-date personal site, my company site):

- | <http://blog.marcocantu.com>
- | <http://www.marcocantu.com>
- | <http://www.wintech-italia.com>

My personal web site hosts a specific page devoted to the book, including updates, source code downloads, and other information:

- | <http://www.marcocantu.com/dh2009>

I have an online mailing list based on a Google group you can sign up from my web site. I also run an online newsgroup with a section devoted to discuss my books and their content, available on the web (in the section called “marco cantu”) at:

- | <http://delphi.newswhat.com>

Finally, feel free to drop me an email at my public address:

- | [marco.cantu@gmail.com](mailto:marco.cantu@gmail.com)