

PART 2



C# and Delphi

Like Delphi, C# is an object-oriented language that avoids some of the more esoteric complexities of C++. That is, C# is more like Delphi than C++ is, and it's even easier to move between Delphi and C# than it is to move between Delphi and C++. The C# chapters are more a cross-reference than a tutorial: when a C# feature is exactly like its Delphi counterpart, I say so and move on; when a C# feature differs in important ways from its Delphi counterpart, I detail the differences; and when a C# feature is new to Delphi programmers (as with various 2.0 features), I cover both the purpose and the details.

Chapter 5 explains the differences between C# and Delphi expression syntax, and goes into some detail about 2.0's *nullable types* and the C# operators like ++, --, ?:, and ?? that Delphi doesn't have. Chapter 6 briefly surveys the structured programming constructs that are basically identical in Delphi and C#; gives more space to the differences between the Delphi *case* statement and the C# *switch* statement; and goes into some detail on the *using* and *lock* statements. Chapter 7 skims basic object syntax, while giving some space to the various field modifiers—and detailing the syntax and semantics of both generics and operator overloading. Chapter 8 covers the syntax of delegates and interfaces, but the bulk of the chapter is concerned with event semantics, anonymous methods, and asynchronous delegate invocation. Chapter 9 is where I cover everything that didn't fit anywhere else: namespaces and the *using* directive; attributes; the @ escape; preprocessor directives; and partial classes. Chapter 10 is a quick summary of changes to Delphi syntax since Delphi 7.

I urge you to read Chapters 5 through 9. While Delphi and C# are similar enough that you can pick up basic C# from IDE help files and compiler error messages, there *are* subtleties that will take you a while to pick up that way. If you only need a reading knowledge of C# (because you plan to program in Delphi for .NET), you should read at least the event and asynchronous sections of Chapter 8, and the attributes section of Chapter 9—they are not repeated in Chapter 10.