

PART 1



Common Language Runtime

The Common Language Runtime (the CLR) is the foundation for all of .NET. These first four chapters cover key concepts like managed code, the Common Type System, garbage collection, Just In Time compilation, and intermediate languages. You should definitely read Chapters 1 and 2; Chapters 3 and 4 are optional, for readers who like details.

Chapter 1 is a high-level introduction to the .NET architecture: it describes managed code, and explains how and why managed code differs from native code. Chapter 2 details the similarities and differences between the Delphi object model and the .NET object model: while the single biggest difference is that .NET offers generics, the .NET object model is cleaner and more integrated than Delphi's in that an object can hold *any* value.

Chapter 3 covers garbage collection in more detail than Chapter 1, with sections on performance, resource protection, and the complications that cause some algorithms to perform worse with automatic memory management than with manual memory management. Similarly, Chapter 4 covers intermediate code and jitting in more detail than Chapter 1, with emphasis on the way IL offers type safety at a comparatively low run-time cost.