PART II

VDM AND PROGRAMMING LANGUAGES

Programming Languages are the communication bridge between the programmer and the machine — if they are not precisely defined, they cannot be used with confidence. Compilers translate programs for execution — if they contain errors, they can frustrate the programmer's attempts to obtain a desired result. It is, therefore, not surprising that formal definition ideas were first applied to programming languages. Such definitions aim to provide a precise reference point for understanding and implementing a language. This part of the book describes the use of VDM on programming languages. Chapters 4 to 7 cover writing a definition in VDM; chapters 8 and 9 discuss how such a definition can be used as the basis of compiler design. The initial examples given are of small, contrived languages. But chapters 6 and 7 apply VDM to complete programming languages which are widely known.