

Numerics in PowerPC Assembly Language

This part summarizes the numeric features available to PowerPC assembly-language programmers. The first chapter in Part 3 describes the basics of PowerPC floating-point architecture. The rest of the chapters describe how to access numeric features in assembly language.

The PowerPC architecture contains a floating-point processor that conforms to the IEEE standard. It directly supports a subset of the floating-point data formats and the arithmetic operations described in Part 1. Numeric operations are supported through assembly-language instructions.

By reading Part 3, you should gain an understanding of how the PowerPC architecture complies with the IEEE standard. Part 3 does not teach you how to write a numeric application in assembly language; it merely summarizes the numeric features available. Refer to the Motorola *PowerPC 601 RISC Microprocessor User's Manual* for complete details on the information presented here.

If your application is written in a high-level language, you might find this part of the book useful when debugging in low-level mode. You also might find Appendix F, "PowerPC Assembly-Language Numerics Reference," useful for this purpose.

