

Preface to the Second Edition

A second edition of this book has given me the opportunity to respond to suggestions from both students and correspondents from around the world, from disparate regions ranging from Scotland to Hawaii. Since the time of the first edition written in the late 1990s, the Microchip PIC range has become the largest volume selling 8-bit MCU. The mid-range family used in the original edition has continued to expand vigorously, with some of the exemplars used becoming essentially obsolete. In addition, the enhanced-range 16-bit instruction line has been enlarged from virtually nothing to form a significant proportion of the family. At the same time, new introductions to the original low- (or base-) end architecture continue apace. Because of the close relationship between the low-, mid-, high- and enhanced-range lines, the focus of the new edition has stayed with the mid-range line up.

Virtually all diagrams have been modified, many extensively, and numerous additional new figures have been added. Throughout the text, special attention has been paid to clarify the basic concepts. In Part I, Chapter 3 has been extensively rewritten with this in mind and to better integrate with Chapters 4 and 5 in Part II, both of which bear only a superficial relation to the original text. Chapter 7, covering interrupt handling, has also been largely rewritten to elucidate a difficult topic. Part III not only has been revised to use current exemplars, but has been extended to cover additional peripherals such as the Analog Comparator and Voltage Reference modules. A new chapter covers the enhanced-range PIC18FXXX range.

With the exception of the first two and last chapters, all chapters have both fully worked examples and self-assessment questions. As an extension to this, an associated Web site at

<http://www.engj.ulfst.ac.uk/sidk/quintessential>

has the following facilities:

- Solutions to self-assessment questions.
- Further self-assessment questions.
- Additional material.
- Source code for all examples and questions in the text.
- Pointers to development software and data sheets for devices used in the book.

- Errata.
- Feedback from readers.

The manuscript was typeset by the author on a variety of Microsoft® Windows™ PCs using a Y&Y implementation of \LaTeX 2 ϵ and the Lucida Bright font family. Line drawings were created or modified with Autocad R13 and incorporated as encapsulated PostScript files. Photographs were taken by the author using several Olympus digital cameras—which are absolutely full of microcontrollers!

Hopefully, any gremlins have been exorcised, but if you find any or have any other suggestions, I will be happy to acknowledge such communications via the Web site.

Sid Katzen
University of Ulster at Jordanstown
July 2005



<http://www.springer.com/978-1-85233-942-5>

The Quintessential PIC® Microcontroller

Katzen, S.

2005, XII, 567 p., Softcover

ISBN: 978-1-85233-942-5