Copyright and Legal Notices

A number of organizations and firms have given us permission to include in the book and/or on the companion CD-ROM copies of various articles from periodicals and conference proceedings, reports, white papers, specifications, standards, and other documents, as well as figures, tables, and graphs. The organizations and firms involved retain the copyrights to this material. None of the contents of the book (in either its hard copy or CD-ROM format) and none of the materials reprinted in the book or CD-ROM, should be copied or distributed, in whole or in part, in any form whatsoever except for a bona fide fair use copy by a reader who has purchased the book. To copy, republish, post on servers, or redistribute any of the material identified above, in any form whatsoever, requires the person wishing to do so to obtain prior written permission from the holder of the associated copyrighted material. Such permission is not automatically granted to the purchasers or other readers of this book and the companion CD-ROM. The IEEE Computer Society Press holds the copyright for this book, both in its hard copy and CD-ROM format.

"What is a fair use copy?" Loosely, a fair use copy is a limited copy that Congress expressly permits without the permission of the copyright holder, provided that the copy is made in a socially desirable manner that is not unfair to the copyright holder. Unfortunately, deciding whether a given instance of copying is a fair use is quite complicated. The issue is often viewed from very different perspectives by the copyist and the copyright holder. When disputes arise, the courts evaluate whether Congress's fair use intent is being met by weighing the totality of the circumstances as determined from such questions as: Is the copying being done merely to positively impact the business income or expenses of the copyist? Is the copying being done principally for the benefit of the copyist? What is the potential for society to benefit from the copying? Is the extent of copying justifiable or excessive in light of the other considerations? How is the copyright holder adversely impacted by the copying?

While not relieving the reader of the burden of evaluating whether copying is fair use or not, and not speaking for the copyright holders, we offer the following observations. For material that is normally charged for but provided under restricted conditions here solely for the educational purposes of this book, we expect that the copyright holder may strongly

COPYING OR
DISTRIBUTING MATERIAL
FROM THE BOOK OR
COMPANION
CD-ROM

object to copies being made in most circumstances. In this category, the articles from Computer Society periodicals and conference proceedings, the IEEE Standards, and the Microprocessor Report articles come particularly to mind. Conversely, for material that is normally freely distributed to individuals via the Web or other means, such as a number of the white papers and data sheets, we expect that the copyright holder will not likely object to copies being made solely for individual convenience. Unauthorized copying for other than personal use and individual convenience will undoubtedly be strongly objected to by all copyright holders.

DISCLAIMER

This publication consists of the book and its companion CD-ROM and is designed to provide information in regard to the subject matter covered. The statements and opinions expressed in this publication are those of the authors and not of any third-party. For purposes of education, certain details of described products may have been simplified or omitted. Therefore, product descriptions may depart from actual products being marketed or sold. Neither this publication, nor its sale and distribution, constitutes any consulting or professional service on the part of the publishers or the authors. If further advice or expert assistance is required, the services of a competent professional person should be sought. This publication includes a large number of documents, computer programs, and other material generated by and included with the permission of third parties, for which the publishers and authors cannot completely certify with respect to reliability and safety. A reasonable attempt has been made to scan the entire publication to guard against the inclusion of malicious programs and other objectionable material and no such matter is known to exist. However, due to practical limitations on what can be readily detected, neither the publishers nor the authors guarantee that malicious or objectionable material is totally absent from the publication. There is thus some risk that the reader incurs in using the included third party materials. We recommend that prior to using these materials, the prudent reader should diligently follow the usual and customary cautionary practices of: (1) maintaining multiple frequent backups of mission critical files and programs; and (2) running periodically updated virus-checking software to continually scan for potential viruses. Any malicious or objectionable material that is brought to the authors' attention will be removed in subsequent revisions. Neither the publisher, the authors, nor any third-party provide any opinion, make any warranty, extend any license, or assume any liability with respect to claims of infringement of any intellectual property in conjunction with the use of the information contained in the book or on the companion CD-ROM. Although every precaution has been taken in the preparation of this publication, the publisher and authors assume no responsibility for errors or omissions nor is any liability assumed for damages resulting from the use of the information contained herein.

TRADEMARKS

Product names used in this publication—e.g., Intel's Pentium processor, Microsoft's Windows NT, or Adobe's Acrobat Reader—are for identification purposes only and may be trademarks of their respective companies. The following list is meant to be illustrative of such marks and is not intended to be an exhaustive or comprehensive list of all marks. It is included due to the marks' high frequency of occurrence. AMD, the AMD logo, AMD-K6, and RISC86 are registered trademarks, and AMD 3D and K6 are trademarks of Advanced Micro Devices Inc. Microsoft, the Microsoft logo, Windows, Windows 95, and Windows NT are trademarks of Microsoft Corporation. Intel, the Intel logo, MMX, i386, i486, Pentium, PentiumPro and Pentium II are trademarks of Intel Corporation. Verilog is a registered trademark of Cadence Design systems Inc. Unix is a trademark of AT&T.