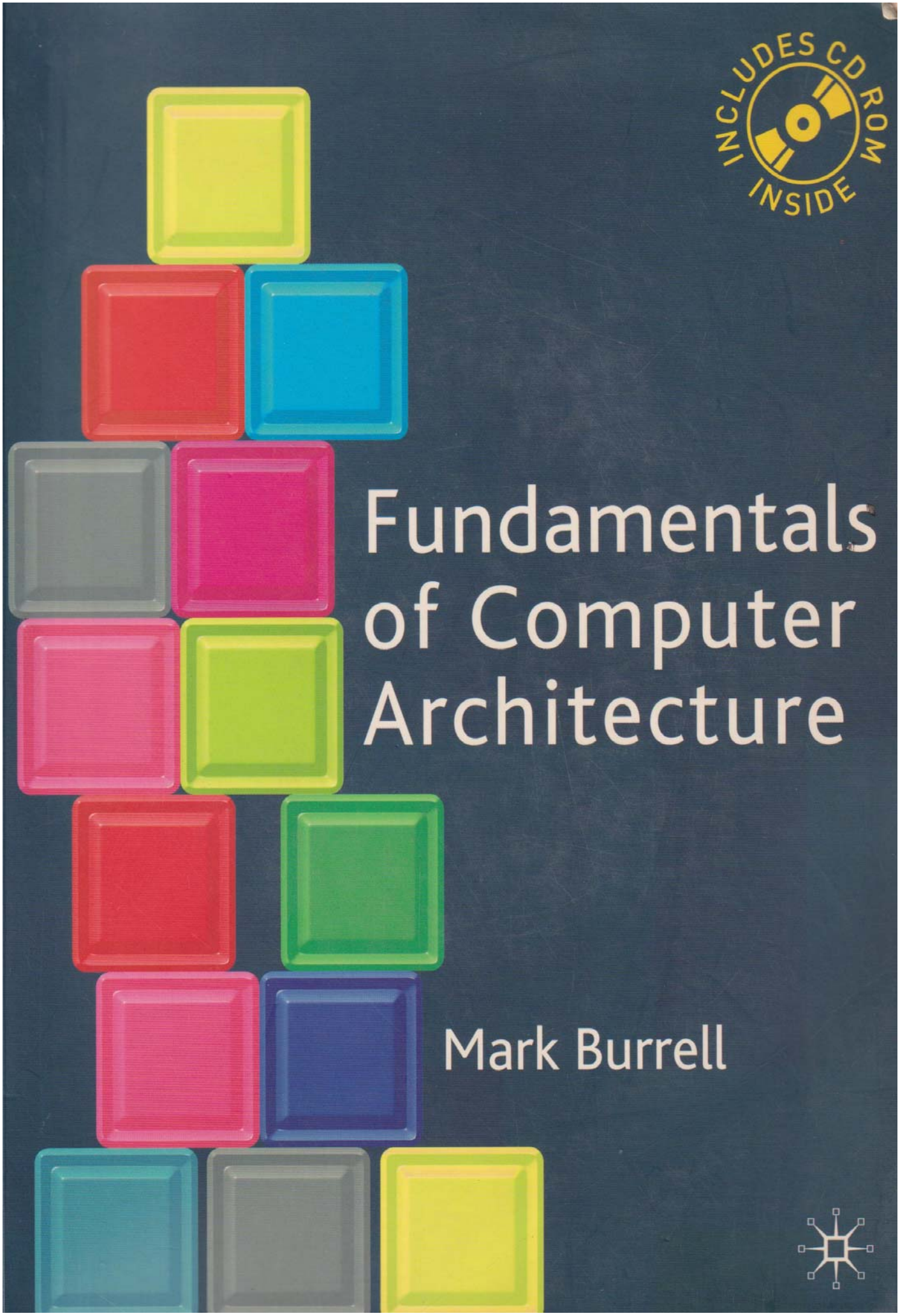

Fundamentals of Computer Architecture

Mark Burrell

Contents

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Computer architecture is the study of the overall layout of the hardware and software components of a computer system. Students often find this subject challenging due to its highly technical content. This book, through the use of simulation software, engages the reader from the beginning and guides them successfully through their course. Written for undergraduate students taking introductory modules in computer architecture, this textbook meets syllabus requirements in a simple and accessible manner.

The book is split into four main parts, these are:

- *The Building Blocks* – which covers the key concepts of the subject and introduces a simple processor;
- *Using the Processor* – which establishes the practical use of the processor starting with simple programs;
- *Under the Bonnet* – which looks at the more advanced facilities and techniques of processors;
- *The Real World* – which looks at how the concepts and techniq covered relate to modern day microprocessors.

Each chapter includes helpful features such as lively examples, a worked exercise, end-of-chapter exercises and definitions of key words in the margins. The book comes with a free CD ROM that includes the JASP toolkit and the latest version of the Digital Wo package. Further resources, including additional exercises and PD slides, can be found on the dedicated lecturer and student web s at www.palgrave.com/science/computing/burrell/.

Mark Burrell is Principal Lecturer in the School of Computing ar Mathematics at the University of Northumbria, and has taught Computer System Fundamentals for several years. He previously gained considerable experience in industry, including serving as technical officer to a major UK Internet gateway for three years.

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