

Just Published

Compression and Coding Algorithms

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COMPRESSION
AND CODING
ALGORITHMS

Kluwer Academic Publishers

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An authoritative reference to the whole area of source coding algorithms, *Compression and Coding Algorithms* will be a primary resource for both researchers and software engineers. The book also will be interest for people in broader area of design and analysis of algorithms and data structure. Practitioners, especially those who work in the software development and independent consulting industries creating compression software or other applications systems, in which compression plays a part, will benefit from techniques that are described.

Compression and Coding Algorithms describes in detail the coding mechanisms that are available for use in data compression systems. The well known Huffman coding technique is one mechanism, but there have been many others developed over the past few decades, and this book describes, explains and assesses them.

People undertaking research of software development in the areas of compression and coding algorithms will find this book an indispensable reference. In particular, the careful and detailed description of algorithms and their implementation, plus accompanying pseudo-code that can be readily implemented on computer, make this book a definitive reference in an area currently without one.

The detailed pseudo-code presentation of over thirty algorithms, and careful explanation of examples, make this book approachable and authoritative. Compression and throughput results are presented where appropriate, and serve as a validation of the assessments and recommendation made in the text. The combination of implementation detail, thoughtful discussions, and careful presentation means that this book will occupy a pivotal role in this area for many years. In-depth coverage of the crucial areas of minimum-redundancy coding, arithmetic coding, adaptive coding make *Compression and Coding Algorithms* unique in its field.

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Hardbound, ISBN 0-7923-7668-4
February 2002, 288 pp.
EUR 120.00 / USD 110.00 / GBP 76.00

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