

Handbook of Data Compression

By David Salomon, Giovanni Motta



Handbook of Data Compression By David Salomon, Giovanni Motta

Data compression is one of the most important fields and tools in modern computing. From archiving data, to CD-ROMs, and from coding theory to image analysis, many facets of modern computing rely upon data compression. This book provides a comprehensive reference for the many different types and methods of compression. Included are a detailed and helpful taxonomy, analysis of most common methods, and discussions on the use and comparative benefits of methods and description of "how to" use them. Detailed descriptions and explanations of the most well-known and frequently used compression methods are covered in a self-contained fashion, with an accessible style and technical level for specialists and non-specialists.



Read Online Handbook of Data Compression ...pdf

Handbook of Data Compression

By David Salomon, Giovanni Motta

Handbook of Data Compression By David Salomon, Giovanni Motta

Data compression is one of the most important fields and tools in modern computing. From archiving data, to CD-ROMs, and from coding theory to image analysis, many facets of modern computing rely upon data compression. This book provides a comprehensive reference for the many different types and methods of compression. Included are a detailed and helpful taxonomy, analysis of most common methods, and discussions on the use and comparative benefits of methods and description of "how to" use them. Detailed descriptions and explanations of the most well-known and frequently used compression methods are covered in a self-contained fashion, with an accessible style and technical level for specialists and non-specialists.

Handbook of Data Compression By David Salomon, Giovanni Motta Bibliography

Sales Rank: #1850018 in BooksPublished on: 2009-12-18Original language: English

• Number of items: 1

• Dimensions: 10.30" h x 2.40" w x 7.90" l, 7.25 pounds

• Binding: Hardcover

• 1361 pages



Read Online Handbook of Data Compression ...pdf

Editorial Review

Review

From the reviews of the fifth edition:

"This book is a huge, comprehensive, and readable overview of the field. ... covers the general field of data compression in abundant detail. ... The book contains numerous diagrams and tables, as well as ... source code. ... If you're interested in developing a new compression algorithm, this is certainly a good starting point. The book should also be of interest to those who are interested in algorithms in general This work belongs in any library and is well worth reading" (Jeffrey Putnam, ACM Computing Reviews, December, 2010)

"The book can be used as a quick reference. It can also be used to learn about the most important issues of approaches to and techniques of data compression Each of the 11 chapters as well as the appendix contain some exercises. Answers to exercises are given between Appendix and Bibliography. The bibliography is very helpful in order to find references to specific subjects. The book is aimed at readers that have general knowledge of computer applications, binary data, and files." (Waltraud Gerhardt, Zentralblatt MATH, Vol. 1194, 2010)

From the Back Cover

"A wonderful treasure chest of information; spanning a wide range of data compression methods, from simple text compression methods to the use of wavelets in image compression. It is unusual for a text on compression to cover the field so completely." – ACM Computing Reviews

"Salomon's book is the most complete and up-to-date reference on the subject. The style, rigorous yet easy to read, makes this book the preferred choice ... [and] the encyclopedic nature of the text makes it an obligatory acquisition by our library." – Dr Martin Cohn, Brandeis University

Data compression is such an important tool in modern computing that some researchers even suggest that all computing is compression! This comprehensive fifth edition of David Salomon's highly successful reference, Data Compression, now fully reconceived under its new title, *Handbook of Data Compression*, is thoroughly updated with the latest progress in the field. This all-inclusive and user-friendly reference work discusses the wide range of compression methods for text, graphical data (still images and movies), and audio.

Among the important features of this accessible reference are a detailed index and helpful glossary, an extensive bibliography, an appendix presenting and explaining the basic concepts and terms in information theory, liberal use of illustrations and data tables, and broad coverage discussing the use and comparative benefits of different methods. The book's logical, clear and lively presentation is organized around the main branches of data compression, for ease in usage.

This meticulously enhanced, reliable handbook is an essential companion for all computer scientists;

computer, electrical and signal/image processing engineers; and scientists needing a comprehensive compilation of compression methods. It requires only a minimum of mathematics and is well-suited to nonspecialists and general readers who need to know and use this valuable content.

David Salomon is a professor emeritus of computer science at California State University, Northridge. He has authored numerous articles and Springer books, including *A Concise Introduction to Data Compression*, *Variable-length Codes for Data Compression*, *Transformations and Projections in Computer Graphics*, *Foundations of Computer Security, Curves and Surfaces for Computer Graphics, Coding for Data and Computer Communications*, *Data Privacy and Security, Guide to Data Compression Methods*, and *Computer Graphics and Geometric Modeling*.

NEW topics and features:

- Dedicated chapters on basic, advanced, and robust variable-length codes
- PK (packed) fonts
- PAQ, an open-source, high-performance compression algorithm and free software
- Interesting LZ variants, such as LZR, LZB, SLH, LZPP, LZT and LZJ
- Antidictionary methods
- The HD photo (a.k.a. JPEG XR) compression method
- ALPC lossless image compression
- GS-2D-LZ Encoding
- Spatial prediction, a combination of JPEG and fractal-based image compression
- The extension to the H.264/AVC video compression standard for temporal, spatial, and quality scalable video coding
- The VC-1 video codec
- Syllable-based compression
- Stuffit compression software

Users Review

From reader reviews:

Dorothy Guillen:

Have you spare time for the day? What do you do when you have a lot more or little spare time? That's why, you can choose the suitable activity intended for spend your time. Any person spent their very own spare time to take a wander, shopping, or went to typically the Mall. How about open as well as read a book eligible Handbook of Data Compression? Maybe it is to become best activity for you. You understand beside you can spend your time with the favorite's book, you can smarter than before. Do you agree with their opinion or you have some other opinion?

Pamela Adair:

In this 21st centuries, people become competitive in most way. By being competitive now, people have do something to make them survives, being in the middle of often the crowded place and notice by surrounding. One thing that often many people have underestimated that for a while is reading. Sure, by reading a publication your ability to survive improve then having chance to remain than other is high. For you

personally who want to start reading a new book, we give you that Handbook of Data Compression book as beginner and daily reading e-book. Why, because this book is usually more than just a book.

Jerry Deal:

Reading a book to get new life style in this year; every people loves to study a book. When you examine a book you can get a lots of benefit. When you read textbooks, you can improve your knowledge, simply because book has a lot of information upon it. The information that you will get depend on what kinds of book that you have read. In order to get information about your analysis, you can read education books, but if you want to entertain yourself look for a fiction books, these us novel, comics, and also soon. The Handbook of Data Compression will give you a new experience in examining a book.

Patrick Siemens:

This Handbook of Data Compression is brand new way for you who has attention to look for some information because it relief your hunger of information. Getting deeper you onto it getting knowledge more you know or else you who still having tiny amount of digest in reading this Handbook of Data Compression can be the light food for yourself because the information inside this particular book is easy to get through anyone. These books build itself in the form that is reachable by anyone, yeah I mean in the e-book web form. People who think that in guide form make them feel tired even dizzy this publication is the answer. So there is no in reading a book especially this one. You can find actually looking for. It should be here for anyone. So, don't miss the item! Just read this e-book sort for your better life as well as knowledge.

Download and Read Online Handbook of Data Compression By David Salomon, Giovanni Motta #RHC47W5LD0A

Read Handbook of Data Compression By David Salomon, Giovanni Motta for online ebook

Handbook of Data Compression By David Salomon, Giovanni Motta Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Handbook of Data Compression By David Salomon, Giovanni Motta books to read online.

Online Handbook of Data Compression By David Salomon, Giovanni Motta ebook PDF download

Handbook of Data Compression By David Salomon, Giovanni Motta Doc

Handbook of Data Compression By David Salomon, Giovanni Motta Mobipocket

Handbook of Data Compression By David Salomon, Giovanni Motta EPub

RHC47W5LD0A: Handbook of Data Compression By David Salomon, Giovanni Motta