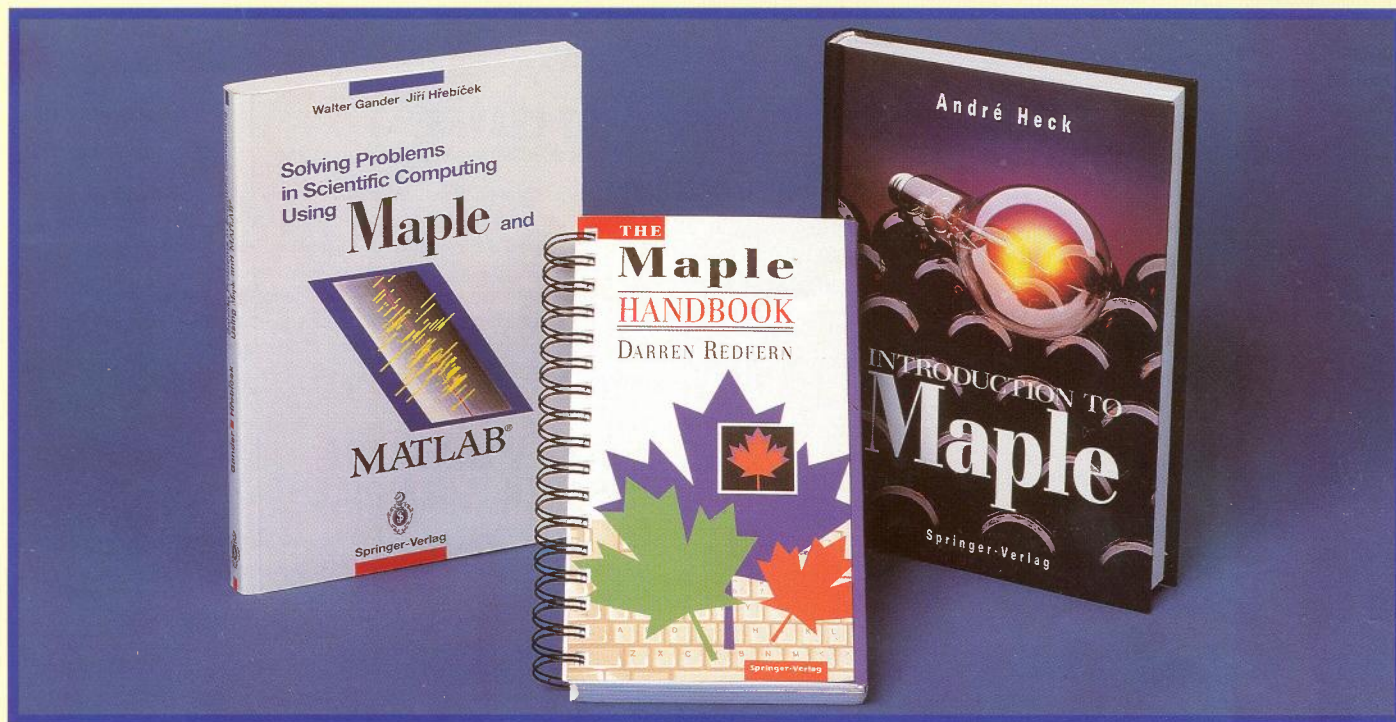


UNLEASH THE POTENTIAL OF MAPLE V



W. GANDER, ETH Zürich, Switzerland and
J. HŘEBÍČEK, University of Agriculture and Forestry,
Brno, Czech Republic (Eds.)

SOLVING PROBLEMS IN SCIENTIFIC COMPUTING USING MAPLE AND MATLAB™

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1993/268 PP., 97 ILLUS./SOFTCOVER/\$39.00/ISBN 0-387-57329-1

D. REDFERN, Practical Approach, Ontario, Canada

THE MAPLE HANDBOOK MAPLE V RELEASE 3

An indispensable handbook for all Maple users, providing a complete reference and learning tool for the Maple V symbolic computation language. All of the built-in mathematical, graphic, and system-based commands available in Maple V are described in a precise and consistent manner. A main premise of the book is that most users approach the system to solve a problem in a specific subject area. In addition, the behavior of many Maple commands will vary when applied to different subject areas. Therefore, *The Maple Handbook* organizes all commands into different categories such as, calculus, algebra, number theory, data manipulation, etc., and explains their usage accordingly. The commands within each topic are prefaced by a quick tutorial, creating a tool that allows quick access to the information needed to complete the problem at hand. Under each entry, helpful information is included on common parameter sequences, what type of output to expect, additional hints and information, and page references to the Maple documentation manuals. A "Getting Started With Maple" tutorial will help those first-time users get off to a quick start.

1994/APP. 552 PP./SOFTCOVER/\$29.00/ISBN 0-387-94331-5

A. HECK, Expertise Centre CAN, The Netherlands

INTRODUCTION TO MAPLE

This gentle introduction to Maple, will provide the reader with a hands-on, in-depth presentation of the most important aspects of the Maple V system. Its goal is to teach not only what can be done by the system, but also how and why it can be done. By presenting a variety of problems and showing how Maple can be used to solve them, the reader will learn both the capabilities of the system and how to utilize it efficiently in his or her work. The many examples and exercises range from elementary to more sophisticated and will encourage the exploration and use of the Maple system. The author has written the book with an emphasis on developing a good understanding of Maple data structures. This understanding will prove invaluable in effectively manipulating and simplifying expressions and will create a good foundation for learning Maple as a programming language.

1993/497 PP., 84 ILLUS./HARDCOVER/\$39.00/ISBN 0-387-97662-0



SPRINGER-VERLAG

E. KAMERICH, Catholic University of Nijmegen, The Netherlands

A GUIDE TO MAPLE

This hands-on book is for those interested in immediately putting Maple to work. It was written to serve as a compact, fast and surveyable guide which introduces the extensive capabilities of the software. The book is sufficient for the standard use of Maple and goes further to provide references and short introductions to facilities contained in Maple that can carry out more specialized calculations. The reliability of results are systematically discussed and ways of testing questionable results are presented. The book is structured to allow one to become a user immediately and then gradually develop to a broader and more proficient use of the Maple system. As a consequence, some subjects are dealt with in an introductory manner early in the book, with references to a more detailed discussion later on.

1994/APP. 250 PP./HARDCOVER/\$29.00(TENT.)/ISBN 0-387-94116-9

R.M. CORLESS, University of Western Ontario, Canada

ESSENTIAL MAPLE

A GUIDE FOR SCIENTIFIC PROGRAMMERS

Essential Maple is an ideal book for anyone who wants to get quickly acquainted with Maple programming. It provides an overview of the most commonly-used commands and constructs, summarizes basic material, highlights slippery points, and gives helpful tips on programming. In addition, experienced programmers will find this book useful in its coverage of subtle topics that are unique to Maple such as: option remember, the assume facility; the use of packages in Maple; evaluation rules; data structures; computation sequences; simplification; solution of equations; sequence acceleration; floating-point evaluation; calling other programs from Maple; operators; structured types; local, global and environment variables; and tracing and debugging. This book will help the reader customize Maple's power and gain access to functions beyond the existing built-in facilities.

1994/APP. 150 PP., 10 ILLUS./HARDCOVER/\$19.95(TENT.)/ISBN 0-387-94209-2

ALSO BY CORLESS...

SYMBOLIC RECIPES

SCIENTIFIC COMPUTING WITH MAPLE

This book gives examples of symbolic manipulation in actual use for senior students and researchers. The programs are of intrinsic interest, but their main purpose is to exhibit a useful programming style in Maple. The first part of the book deals with exact computation, exploring topics from linear algebra, polynomial manipulation, calculus, special functions i.e., Jacobian elliptic functions, integral equations, and the calculus of variations. The second part covers approximate analytical methods. Topics of special interest are also included, such as: a new symbolic study of the method of modified equations, showing how Maple can aid in the analysis of chaotic dynamical systems, as well as an example of the solution of a PDE arising in heat transfer.

1994/APP. 300 PP., 60 ILLUS./HARDCOVER/\$39.00(TENT.)/ISBN 0-387-94210-6

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FIRST LEAVES

A TUTORIAL INTRODUCTION TO MAPLE V

This tutorial shows how to use Maple V both as a calculator with instant access to hundreds of high-level math routines and as a programming language to handle demanding or specialized tasks. The symbolic, numeric and graphing features of Maple V are explained and illustrated through extensive "how-to" examples. This book will guide the first time user to a level of solving mathematical, scientific and engineering problems with ease and finesse.

1992/253 pp./Hardcover/\$24.00/ISBN 0-387-97621-3

MAPLE V LANGUAGE REFERENCE MANUAL

The Maple Symbolic Computation System and the Maple V language are described in this manual. It covers the numeric and symbolic expressions that can be used, all the basic data types, and structured data types. A complete description of the programming language statements are provided, showing the Maple user how to extend the functionality of the system by adding user-defined routines. Additionally, it provides a complete description of the Maple V system, its user interfaces, and its 2D and 3D graphics.

1991/267 pp./Hardcover/\$24.95/ISBN 0-387-97622-1

MAPLE V LIBRARY REFERENCE MANUAL

All of the functions available in Maple V's library are described in detail, including a brief description, the parameters it uses, and further details about the function. Each description is accompanied by extensive examples showing how the function can be used.

1991/698 pp./Hardcover/\$39.50/ISBN 0-387-97592-6

FOR ADDITIONAL INFORMATION ON MAPLE V SOFTWARE, PLEASE CONTACT

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