

The book was found

# Using Advanced MPI: Modern Features Of The Message-Passing Interface (Scientific And Engineering Computation)



## Synopsis

This book offers a practical guide to the advanced features of the MPI (Message-Passing Interface) standard library for writing programs for parallel computers. It covers new features added in MPI-3, the latest version of the MPI standard, and updates from MPI-2. Like its companion volume, *Using MPI*, the book takes an informal, example-driven, tutorial approach. The material in each chapter is organized according to the complexity of the programs used as examples, starting with the simplest example and moving to more complex ones. *Using Advanced MPI* covers major changes in MPI-3, including changes to remote memory access and one-sided communication that simplify semantics and enable better performance on modern hardware; new features such as nonblocking and neighborhood collectives for greater scalability on large systems; and minor updates to parallel I/O and dynamic processes. It also covers support for hybrid shared-memory/message-passing programming; `MPI_Message`, which aids in certain types of multithreaded programming; features that handle very large data; an interface that allows the programmer and the developer to access performance data; and a new binding of MPI to Fortran.

## Book Information

Series: Scientific and Engineering Computation

Paperback: 392 pages

Publisher: The MIT Press; 1 edition (November 7, 2014)

Language: English

ISBN-10: 0262527634

ISBN-13: 978-0262527637

Product Dimensions: 8 x 0.7 x 9 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #895,541 in Books (See Top 100 in Books) #90 in Books > Computers & Technology > Programming > Parallel Programming #2532 in Books > Computers & Technology > Hardware & DIY #5080 in Books > Computers & Technology > Computer Science

[Download to continue reading...](#)

Using Advanced MPI: Modern Features of the Message-Passing Interface (Scientific and Engineering Computation) Using MPI-2: Advanced Features of the Message Passing Interface (Scientific and Engineering Computation) Using MPI - 2nd Edition: Portable Parallel Programming with the Message Passing Interface (Scientific and Engineering Computation) MPI: The Complete

Reference (Vol. 2), Vol. 2 - The MPI-2 Extensions Using OpenMP: Portable Shared Memory Parallel Programming (Scientific and Engineering Computation) Parallel Scientific Computing in C++ and MPI: A Seamless Approach to Parallel Algorithms and their Implementation Modern Fortran Explained (Numerical Mathematics and Scientific Computation) 4th (Fourth) Edition Fortran 95/2003 Explained (Numerical Mathematics and Scientific Computation) axiom(TM): The Scientific Computation System Large Eddy Simulation for Compressible Flows (Scientific Computation) Advanced Windows Nt: The Developer's Guide to the Win32 Application Programming Interface/Book and Disk Diversity and the Tropical Rain Forest: A Scientific American Library Book (Scientific American Library Series) Common LISP: A Gentle Introduction to Symbolic Computation (Dover Books on Engineering) A Primer For The Mathematics Of Financial Engineering, Second Edition (Financial Engineering Advanced Background Series) Solutions Manual - A Linear Algebra Primer for Financial Engineering (Financial Engineering Advanced Background Series) (Volume 4) AIX V6 Advanced Security Features Introduction and Configuration Medical Device Technologies: A Systems Based Overview Using Engineering Standards (Academic Press Series in Biomedical Engineering) Galaxy S7: Beginners Guide - How To Start Using Your Galaxy S7, Plus Helpful Tips & Tricks And Hidden Features! (S7 Edge, Android, Smartphone) A Modern Herbal (Volume 1, A-H): The Medicinal, Culinary, Cosmetic and Economic Properties, Cultivation and Folk-Lore of Herbs, Grasses, Fungi, Shrubs & Trees with Their Modern Scientific Uses The World Encyclopedia of Submarines, Destroyers & Frigates: Features 1300 wartime and modern identification photographs: a history of destroyers, ... of over 380 warships and submarines

[Dmca](#)