



















WHAT'S NEW IN
MATHEMATICA[®]5.2

**BREAKING THE MEMORY BARRIER WITH 64-BIT COMPUTING,
ADDING MULTICORE PERFORMANCE**

- | | |
|--|---|
|  All-platform support for 64-bit addressing |  vCard and RSS import |
|  Multicore support on major platforms |  New algorithms for symbolic differential equations |
|  Multithreaded numerical linear algebra |  Enhanced performance for linear Diophantine systems |
|  64-bit-enhanced arbitrary-precision numerics |  Enhanced quadratic quantifier elimination |
|  Vector-based performance enhancements |  Singular-case support for high-level special functions |
|  Automatic binary installation selection |  Enhanced statistics charts |
|  Bundled notebook indexing for desktop search |  <i>MathematicaMark</i> [™] 5.2 benchmark now covering grids and clusters |
|  SSH support for secure remote kernels |  And many more enhancements and innovations... |

OTHER FEATURES RECENTLY ADDED TO *MATHEMATICA*

Mathematica continues to develop at a rapid pace. In the last two years alone, new version releases have added numerous features to support the needs of users of all levels.

MAJOR FEATURES IN *MATHEMATICA* 5.1

- Industrial-strength string manipulation
- Built-in universal database connectivity
- Highly optimized binary data I/O
- Additional import/export formats including XLS and AVI
- Integrated web services support
- 2D and 3D automated network visualization
- High-performance array visualization
- Numerical linear algebra performance enhancements
- Fully integrated piecewise functions
- Integration over implicitly defined regions
- Event handling in numerical differential equations
- New algorithms for symbolic differential equations
- Cluster analysis capabilities added
- Interactive exploration tool for differential equations
- *MathematicaMark* benchmarking tool
- *GUIKit* interface and application builder—now built in

MAJOR FEATURES IN *MATHEMATICA* 5.0

- Record-breaking speed for numerical linear algebra
- Wide-ranging support for fast sparse matrix operations
- New-generation optimized numerical solvers for ordinary and partial differential equations
- Major new algorithms for solving equations and inequalities symbolically over complex numbers, reals, and integers
- Fully integrated solver for differential algebraic equations
- High-performance optimization and linear programming, including interior point method
- Extensive support for vector and array functions in numeric solvers
- Ground-breaking solver for recurrence equations
- Broader support for domain specifications in symbolic computation
- *.Net/Link*[™] for full integration with Microsoft .Net framework
- Flexible import and export of DICOM, PNG, SVG, and sparse matrix formats
- Optimized versions available for 64-bit hardware and operating systems
- New quick-start interactive tutorial
and many more innovations...

For more information, visit www.wolfram.com/mathematica/newin52.

MATHEMATICA 5.2 IS AVAILABLE FOR

Windows (32-bit/64-bit), Mac OS X (32-bit/64-bit), and Linux (32-bit/64-bit) as well as the following workstation and server platforms: Linux (Itanium), Sun Solaris (x86-64, SPARC), HP Tru64 Unix, HP-UX, IBM AIX, SGI IRIX, and compatible systems.

FOR MORE INFORMATION IN THE U.S. AND CANADA:
info@wolfram.com
1-800-WOLFRAM (965-3726)

FOR INQUIRIES OUTSIDE THE U.S. AND CANADA:
Contact the international reseller nearest you.

FOR RESELLER INFORMATION:
www.wolfram.com/international
+1-217-398-0700