

Mathcad 14.0 Upgrade Feature Comparison Chart

MATH FORMATS & DISPLAY	VERSION							
	8	2000	2001	2001 <i>i</i>	11	12	13	14.0
SI, MKS, U.S. and CGS unit-balancing with user-defined units	*	*	*	*	*	*	*	*
Temperature and non-multiplicative scaling units (dB, FIF, DMS, etc.)							*	*
User-defined default units dialog showing base and derived units							*	*
Real, imaginary and complex number support	*	*	*	*	*	*	*	*
Decimal, binary, octal and hexadecimal display and import	*	*	*	*	*	*	*	*
Explicit substitution of values before calculation							*	*
In-line statement definition and evaluation								*
Math operator display options for assignment, partial derivatives and multiplication		*	*	*	*	*	*	*
Operator display options for symbolic evaluations							*	*
Engineering and Scientific Notation Display		*	*	*	*	*	*	*

SOLVING CAPABILITIES	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Define and evaluate variables and functions numerically or symbolically	*	*	*	*	*	*	*	*
Linear and non-linear system solving and optimization solve blocks	*	*	*	*	*	*	*	*
Solve systems with hundreds of variables and constraints, in matrix or individual equation notation		*	*	*	*	*	*	*
Fast ODE solver for stiff systems and differential algebraic systems (Radau)				*	*	*	*	*
Systems of ODEs in solve blocks			*	*	*	*	*	*
New and improved ODE algorithms (Adams, BDF)								*
Statespace function								*
1D PDE solvers in solve blocks					*	*	*	*
Live symbolic (algebraic) evaluation, including expansion, factorization, transforms	*	*	*	*	*	*	*	*
New and enhanced symbolics capabilities, including vectorization, solve fully, piecewise integral solutions, new and enhanced keywords, etc.								*
Multiple root-finding algorithms, including symbolic methods		*	*	*	*	*	*	*
Local functions in programs						*	*	*

GRAPHING & VISUALIZATION	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Bar charts, x-y, polar, vector, contour, scatter, and surface plots	*	*	*	*	*	*	*	*
Animation capabilities	*	*	*	*	*	*	*	*
Trace & Zoom	*	*	*	*	*	*	*	*
2D and 3D QuickPlot™ and plot annotation		*	*	*	*	*	*	*
Open GL™ 3-D graphs	*	*	*	*	*	*	*	*
Image Viewer with support for BMP, GIF, JPG, PCX, TARGA, PGM, TIFF			*	*	*	*	*	*
2nd Y-axis for 2D plots						*	*	*
Positionable legends for 2D plots						*	*	*
Grid and marker color selectors						*	*	*
Full color palette for traces, new symbols, symbol frequency							*	*
Axis number formatting								*
Negative radii on polar plots								*

DOCUMENT/TEXT EDITING FEATURES	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Customizable spell checker with technical terms	*	*	*	*	*	*	*	*
Document templates and style sheets	*	*	*	*	*	*	*	*
Hyperlinking	*	*	*	*	*	*	*	*
Advanced Find and Replace in text and math	*	*	*	*	*	*	*	*
Region layering, bordering and alignment controls		*	*	*	*	*	*	*
Document ruler with indenting support		*	*	*	*	*	*	*

Text and equation highlighting, bordering and color selection		*	*	*	*	*	*	*
Header and footer formatting		*	*	*	*	*	*	*
Hidden, collapsed, and locked areas		*	*	*	*	*	*	*
Live math within text regions		*	*	*	*	*	*	*
Indexing and hyperlink-checking for e-books			*	*	*	*	*	*
Document protection				*	*	*	*	*
Region nudging and alignment guides					*	*	*	*
Metadata, automatic provenance, and annotations						*	*	*
Autofilled delete lines						*	*	*
Custom characters toolbar							*	*
Long area names, change referenced files in Properties							*	*
Full Unicode support								*
Comprehensive math font								*

FILE FORMATS, PUBLISHING & WEB SUPPORT	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Save as XML						*	*	*
Compressed images and files						*	*	*
Calculated results saved in XML						*	*	*
Save as HTML	*	*	*	*	*	*	*	*
HTTP File Open support					*	*	*	*
Save files in older file formats			*	*	*	*	*	*
Save to RTF, retaining region positioning for MS Word					*	*	*	*

CONNECTIVITY WITH OTHER APPLICATIONS	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Support for Mathcad Calculation Server					*	*	*	*
Support for Microsoft SharePoint Server					*	*	*	*
Pro/ENGINEER® Integration							*	*
MathWorks MATLAB® 4 - 6.5	*	*	*	*	*	*	*	*
MathWorks MATLAB® 7.0 - 7.1							*	*
MathWorks MATLAB® 7.2								*
Autodesk® AutoCAD 2000/2001 <i>i</i> /2002		*	*	*	*			
Microsoft® Excel		*	*	*	*	*	*	*
Intergraph® SmartSketch 4				*	*	*	*	*

DATA EXCHANGE FEATURES	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Data filters for .mat files, Excel files, Lotus 1-2-3, ASCII & others	*	*	*	*	*	*	*	*
Mixed format import, cut and paste (strings, complex, engineering notation, real numbers, Excel) to matrices					*	*	*	*
Real-time data acquisition from National Instruments® and Measurement Computing analog boards			*	*	*	*	*	*
Microsoft® Access, FoxPro and SQL-supported databases			*	*	*	*	*	*
WAV file read, write and information functions			*	*	*	*	*	*
File I/O component for multiple file formats, importing data as strings, and selecting specified columns or rows					*	*	*	*
Support for UserEFI strings					*	*	*	*
Improved APPENDPRN function					*	*	*	*
Binary file read and write					*	*	*	*
Enhanced Excel data exchange and integration					*	*	*	*

Data Wizard component with preview, text, binary and Excel import settings						*	*	*
Function to read Excel and fixed-width files						*	*	*

RESOURCES	8	2000	2001	2001<i>i</i>	11	12	13	14.0
References tables, key formulas and constants	*	*	*	*	*	*	*	*
The Collaboratory™, the Mathcad Web-based forum	*	*	*	*	*	*	*	*
Technical support	*	*	*	*	*	*	*	*
Online tutorials and discipline-specific examples	*	*	*	*	*	*	*	*
Easy-to-use online Help with Search and Index		*	*	*	*	*	*	*
Adaptable QuickSheets demonstrating standard analyses and tasks		*	*	*	*	*	*	*
New Solving and Optimization E-book								*
Localized Help and Documentation								*
Online Developer's Reference			*	*	*	*	*	*
FLEXlm license management (Single User)								*
Programming tutorial							*	*
Rewritten, reorganized and reformatted Help						*	*	*

MICROSOFT STANDARDS AND OS SUPPORT	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Microsoft® Windows 95	*	*	*					
Microsoft® Windows NT 4 (Service Pack 6 or higher)	*	*	*	*	*			
Microsoft® Windows 98 (Service Pack 2)	*	*	*	*	*			
Microsoft® Windows 2000 support		*	*	*	*	*	*	*
Microsoft® Windows XP support				*	*	*	*	*
Microsoft® Windows ME support			*	*	*			

Microsoft® Office 2000 compatibility			*	*	*	*	*	*
Microsoft® Office 2003 compatibility							*	*
Microsoft® Windows XP/Office XP support				*	*	*	*	*
ActiveX support		*	*	*	*	*	*	*

ADDITIONAL TOOLS (available for purchase)	8	2000	2001	2001<i>i</i>	11	12	13	14.0
Civil, Electrical, and Mechanical Engineering Libraries	*	*	*	*	*	*	*	*
Data Analysis Extension Pack					*	*	*	*
Signals, Image Processing, and Wavelets Extension Packs	*	*	*	*	*	*	*	*
Solving and Optimization Extension Pack	*	*	*	*	*	*	*	
Volume Licensing (Enterprise Only)	*	*	*	*	*	*	*	*
PTC Gold Maintenance Support (Enterprise Only)	*	*	*	*	*	*	*	*
Mathcad On-site Training Courses (Enterprise Only)					*	*	*	*
Web-based Training Courses		*	*	*	*	*	*	*
VisSim Plus					*	*	*	