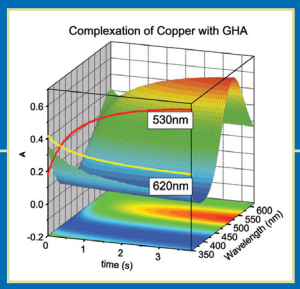
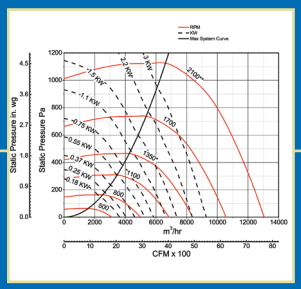
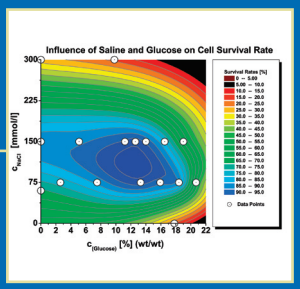
OriginLab®

ORIGIN® 8

The Data Analysis and Graphing Workspace





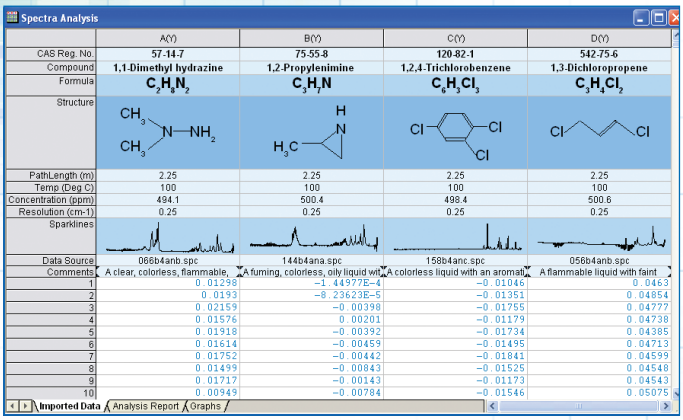


ORIGIN® 8

The Data Analysis and Graphing Workspace

ORIGIN 8 includes a suite of features that cater to the needs of scientists and engineers alike. Multi-sheet workbooks, publication-quality graphics, and standardized analysis tools provide a tightly integrated workspace for you to import data, create and annotate graphs, explore and analyze data, and publish your work.

To ensure that Origin meets your data analysis requirements, intuitive tools for advanced statistics, regression, nonlinear curve fitting, signal processing, image processing and peak analysis are built-in. Since any analysis operation can be set to automatically recalculate, you can reuse your projects as templates for future work, thereby simplifying your daily routine.



Origin's workbooks support multiple worksheets that have header regions for long names, units, user-defined parameters, comments and sparklines. Data columns support mixing text and numeric, or pure numeric columns ranging from 1-byte to 16-byte complex data types.

"If I had to pick three software packages to take to a desert island, Origin would be at the top of the list. Not only does Origin handle the most demanding curve fitting and data analysis tasks with ease, and makes superior publication quality graphs; it also has a built in C compiler that allows me to customize complex functions – a feature that has been crucial to my research. To top it off, Originlab has a knowledgeable and responsive technical support staff, second to none. I wholeheartedly recommend Origin."

— Mark Kuzyk, Ph.D.
Boeing Distinguished Professor of Physics and Astronomy and Associate Chair
Washington State University

"With tools, such as LabVIEW and MATLAB, data acquisition and generation has become a highly automated task in the research environment. This, however, generates massive amounts of information, which is increasingly more difficult to handle. This is where the new Origin 8 comes as a best solution. Its new workbook environment, with multiple datasheets and automated data analysis, as well as very flexible import capabilities, allows for fast and efficient organization of the data. Impressive statistical analysis, nonlinear fitting and graphing capabilities make it a unique and highly adjustable tool for efficient research."

— Ruslan Prozorov, Ph.D.
Ames Laboratory and Department of Physics & Astronomy
Iowa State University

Multi-sheet Workbooks for Scientists and Engineers

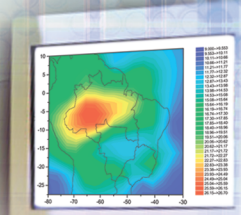
Origin's new multi-sheet workbooks with rich-text formatting let you consolidate and manage imported data, images, database queries, related analysis results and graphs.

Graphs, images, and notes can be embedded in worksheet cells, facilitating better project organization, documentation and report generation.

Quickly review the profile of each dataset by glancing at its sparkline[1] at the top of each worksheet column.

Sheets can be dragged and dropped to easily reorganize the active workbook, or to place into another workbook.

Create column formulas that operate on any dataset within the Origin project using built-in mathematical and statistical functions or LabTalk statements that call X-Functions. The column formulas can be set to automatically recalculate the results whenever the source data is changed.



[1] Edward Tufte, Ph.D. 2006. Sparklines: Intense, Simple, Word-Sized Graphics. In: BEAUTIFUL EVIDENCE. Cheshire, CT: Graphics Press LLC. p 47-63

Import your data into Origin

Getting your data into Origin is easy–you can access your data from a broad range of sources by either importing data files, using SQL database queries, or directly opening Microsoft® Excel workbooks. Import file formats include ASCII, ETAS Inca, imc Mess-Systeme GmbH - FAMOS, Molecular Devices pCLAMP®, Mathematica®, MATLAB®, MINITAB®, National Instruments LabVIEW® and DIAdem, Princeton Instruments, and Thermo® SPC data files or you can program your own.

For ASCII files with header information or binary files of known structure, an Import Wizard with data preview lets you instruct Origin on how to parse and import your data. Import filters can be saved and used in the future with similar data.

You can either import Excel files into Origin's new workbook, or open Excel files directly within Origin.

The pCLAMP import routine lets you import multiple files and includes the ability to select which channels (by name) and/or episodes (by number) to import. After importing, each worksheet column can display a sparkline so that you can quickly see the dataset profiles.

Metadata, such as file name, creation date, path, and extracted variables, is stored with the imported data and can be accessed in the Workbook Organizer. You can even add your own metadata.

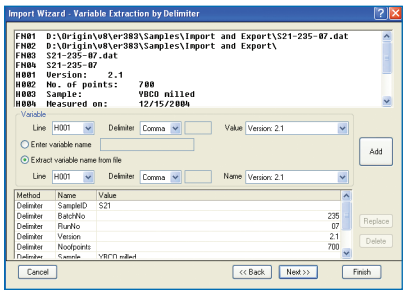
Publication Quality Graphs

Origin's wide array of 2D, 3D, statistical and contour graph types can be created with the click of a button. You can even instantly add a data plot to an existing graph using drag-and-drop from any worksheet or Excel workbook.

All elements of your graph can be customized using point-and-click interfaces, enabling you to format your graph as you desire. Formatting in a graph can be copied from one graphical element and pasted onto another or saved as a theme and applied later. A Theme Organizer lets you manage built-in and saved themes as well as apply them to your graphs or set a system theme. In addition, your customized graphs can be saved as graph templates in order to create additional graphs of the same style. The ability to create themes, as well as graph templates, can significantly save time when creating, and recreating, custom presentation quality graphs.

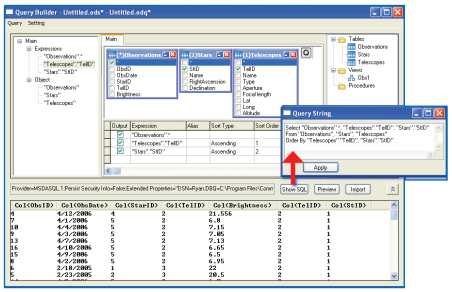
Easily add your Origin worksheets, results sheets, or graphs to technical publications, slide shows, posters, or lab reports.

Copy your graph, and paste or paste-link in PowerPoint®, CorelDraw®, Microsoft® Word, or any other OLE 2 application. Export your graph to a wide variety of formats including favorites such as AI, BMP, EPS, JPG, PDF, TIFF, WMF, and many more. Make graph attribute changes for the exported graph without modifying the original using the Graph Export dialog.



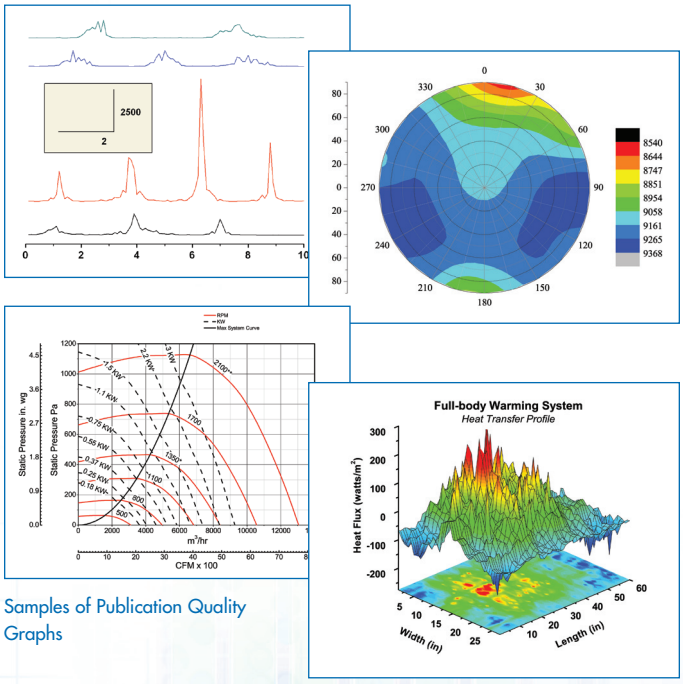
Import Wizard

Origin's import wizard includes three methods for extracting header information into variables, one of which is the ability to extract them by specifying one or more delimiters.

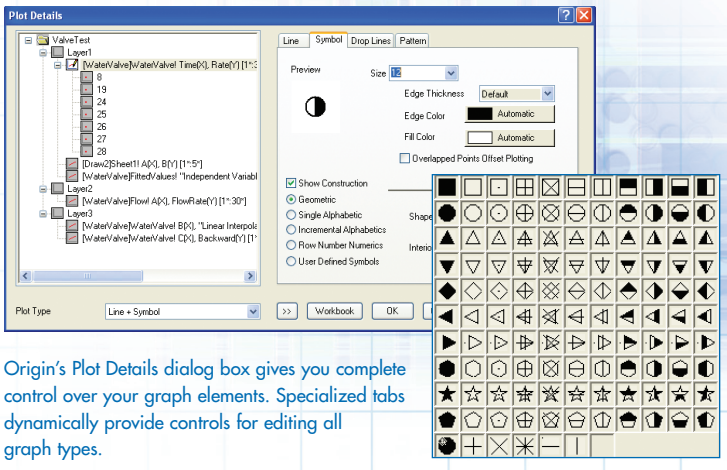


New SQL Querying Tool

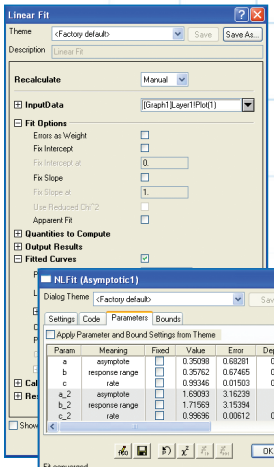
Graphically construct SQL queries, join tables, save queries, and more using Origin's SQL Query tool.



Samples of Publication Quality Graphs

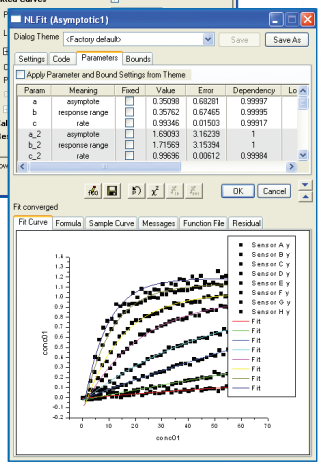


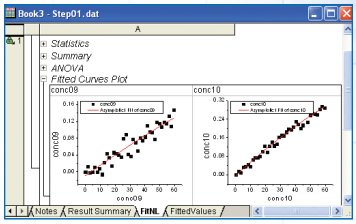
Origin's Plot Details dialog box gives you complete control over your graph elements. Specialized tabs dynamically provide controls for editing all graph types.



Setting up your Analysis Template...

Set up your analysis the way you want. After your initial analysis has completed, just clear your raw data and save the window to make an Analysis Template.





Powerful Data Analysis

Origin provides a wide array of analysis tools, including Descriptive Statistics, Hypothesis Testing, One-Way and Two-Way ANOVA, Baseline and Peak Analysis, FFT, Filtering, Smoothing, Linear Regression and Nonlinear Curve Fitting. You can control all aspects of your analysis using specialized, standardized interfaces. Preferred settings can be saved as a theme for later use.

Analysis results are automatically generated in results sheets that can be placed in the same workbook as the source data. In this way, parameter values, statistics, and related analysis graphs are just a click away when looking at the original data.

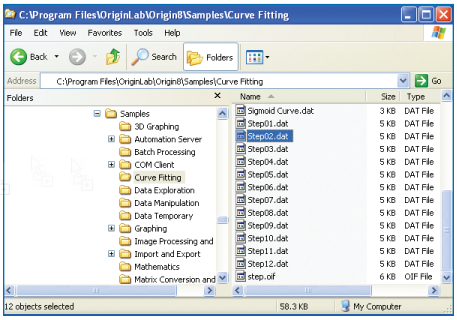
Analysis Templates™

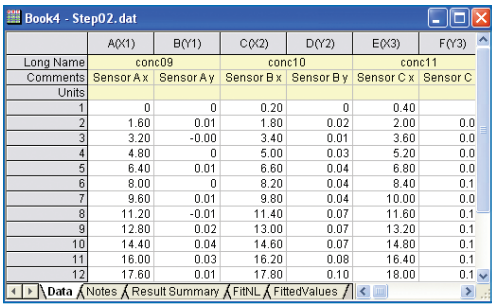
Origin 8 can automatically update any analysis operation whenever your source data or analysis parameters are changed.

This powerful feature can be used to create analysis templates that are pre-configured to perform analysis and update results. Analysis Templates may consist of either a single Origin workbook or an entire Origin project.

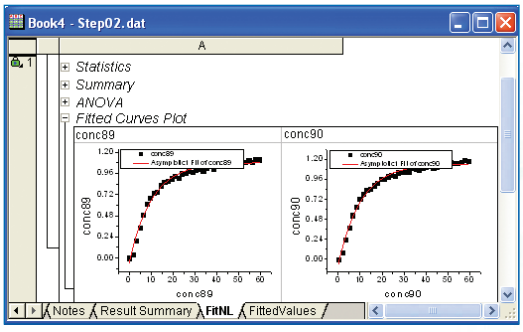
Using your Analysis Templates is easy...

- Easily access your Analysis Templates by using the Recent Books or recent projects list
- Import new data (e.g. drag and drop data from Windows Explorer) or use the new re-import feature to update an already loaded data file
- Origin recalculates your analysis results automatically, then you can review and export (to Adobe® PDF) or print the results





	A(X1)	B(Y1)	C(X2)	D(Y2)	E(X3)	F(Y3)
Long Name	conc09		conc10		conc11	
Comments	Sensor A x	Sensor A y	Sensor B x	Sensor B y	Sensor C x	Sensor C
Units						
1	0	0	0.20	0	0.40	
2	1.60	0.01	1.80	0.02	2.00	0.0
3	3.20	-0.00	3.40	0.01	3.60	0.0
4	4.80	0	5.00	0.03	5.20	0.0
5	6.40	0.01	6.60	0.04	6.80	0.0
6	8.00	0	8.20	0.04	8.40	0.1
7	9.60	0.01	9.80	0.04	10.00	0.0
8	11.20	-0.01	11.40	0.07	11.60	0.1
9	12.80	0.02	13.00	0.07	13.20	0.1
10	14.40	0.04	14.60	0.07	14.80	0.1
11	16.00	0.03	16.20	0.08	16.40	0.1
12	17.60	0.01	17.80	0.10	18.00	0.1



You can drag and drop files to import them into your Analysis Template, thereby triggering the analysis, or, if you're using the same data file each time, you can use the "re-import" feature. Re-import lets you bring in the same data file that was imported into the Analysis Template before so that the analysis automatically recalculates on the updated data.

Programming

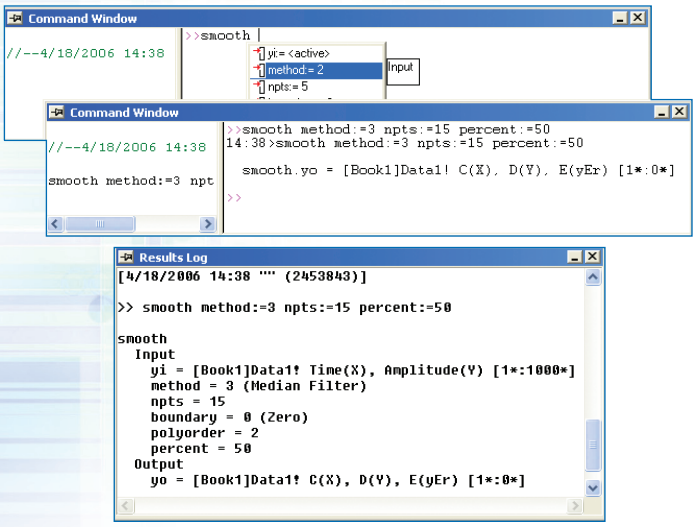
Origin offers a full-fledged programming environment plus a new technology, called X-Functions.

X-Functions provide a framework to create custom programs that run within Origin, allowing you to easily develop and share your own field and task specific graphing and analysis operations.

Each X-Function program can be accessed by a dynamically generated, uniform user interface, or can be added as a menu item.

X-Functions are written in Origin's built-in language, Origin C, and can be compiled, linked and debugged with Origin's built-in compiler, providing users with a familiar programming environment to access and extend Origin's data analysis and graphing capabilities.

X-Functions, combined with Origin's numerical computation and graphing power, provide you with a robust platform for routine data processing, analysis, and custom application development.



Origin's command window can be used to execute commands and build scripts, as a calculator, and more. Auto complete is provided when typing in X-Functions, while roll back support is included to search through the command window history for previously executed commands.

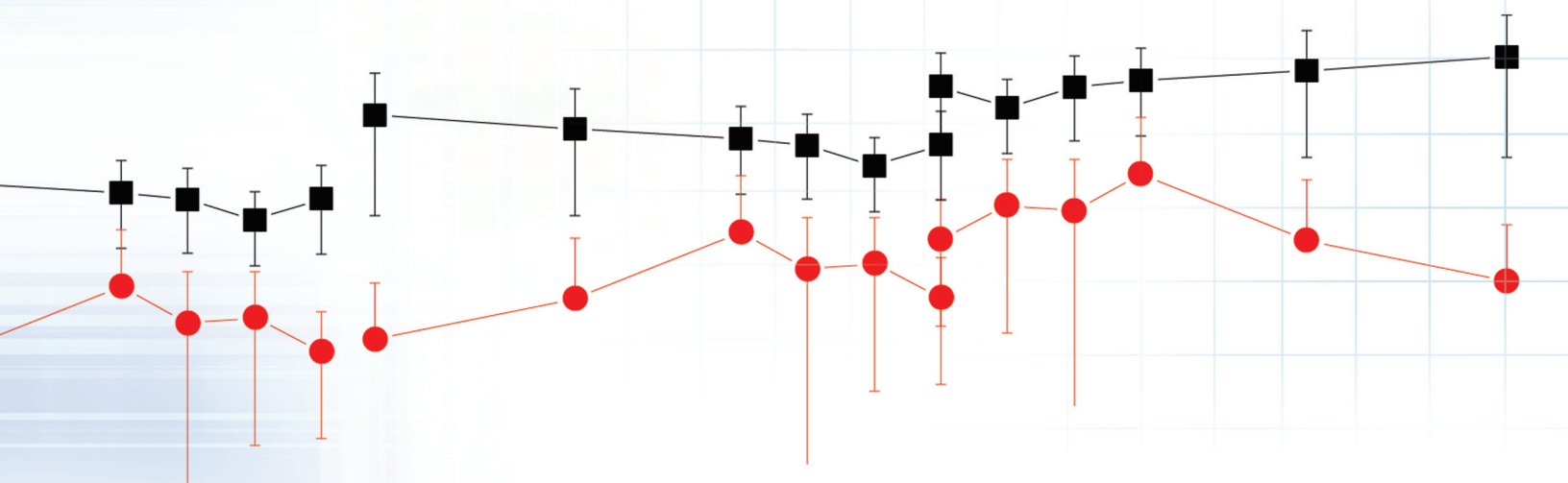
NAG® Software Partner

Origin includes the entire Numerical Algorithms Group (NAG®) Mark VII numerical library. This library provides you with time-tested numerical computation algorithms, such as Statistics, Fourier Transforms, Linear Algebra, Regression, Multivariate Analysis including Principal Component Analysis, and more. All NAG functions are accessible from Origin C, allowing you to develop sophisticated applications that require advanced numerical computation.

Online Resources

Visit us online at www.OriginLab.com to access a wide-range of resources for Origin. Our website includes information on the following:

- Knowledge Database
- User Forums
- Programming Resources
- Product Features
- Licensing Options
- File Exchange
- Origin Training
- Application Development Consulting

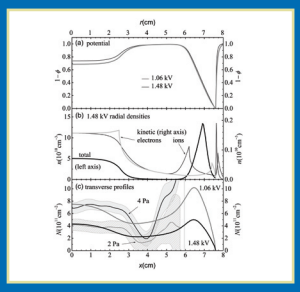


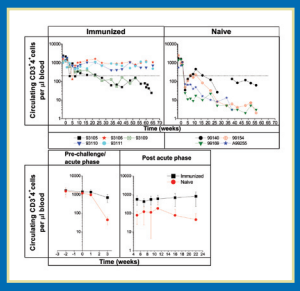
About OriginLab Corporation

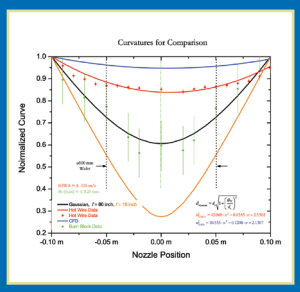
OriginLab is a leading developer of scientific graphing and analysis software. Since 1992, we have sold over 100,000 copies of Origin around the world. Our worldwide customer base includes leading technology companies, government research laboratories, and more than 800 universities and colleges.

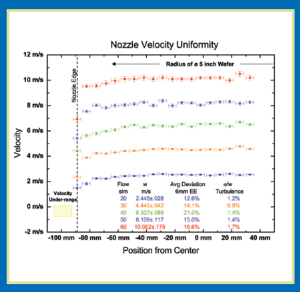
Technical Services

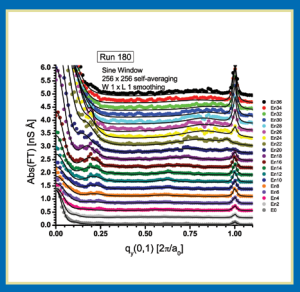
We strive to provide friendly and helpful service to our customers. OriginLab offers two levels of support. Standard technical support is included with the latest version of Origin and OriginPro. Priority technical support is available with the purchase of our Maintenance services. Training and Consulting services are also available.

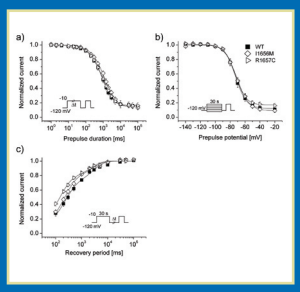


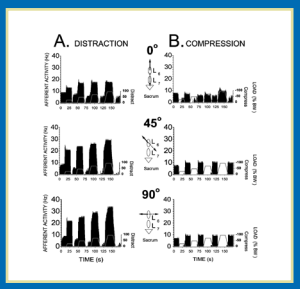


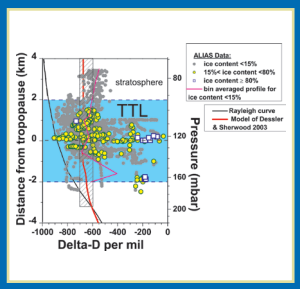


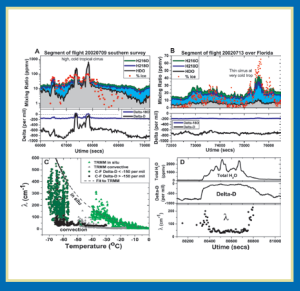


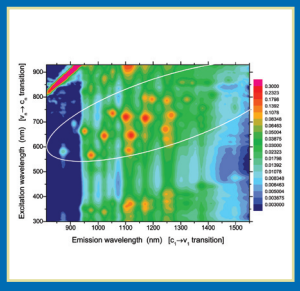












System Requirements

Microsoft® Windows NT® 4.0 or later, Windows® 2000 or Windows® XP or later, Microsoft® Vista™
1 GHz or higher Pentium-compatible processor
512 Megabytes (MB) of RAM (1024 MB recommended)
350 MB of free hard disk space
CD-ROM drive
To use HTML Help, Internet Explorer 4.01 or later required

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