

Origin 7.5. OriginLab Corporation, One Roundhouse Plaza, Northampton, MA 01060. 1-800-969-7720. www.OriginLab.com. Suggested price \$699.00 (retail, single user), \$489.00 (educational, single user). Contact company for other pricing options.

Origin 7.5 is OriginLab's latest release of its popular scientific plotting and analysis software. Since the main features of a previous version (Origin 7.0) were highlighted recently (*J. Am. Chem. Soc.* **2003**, *125*, 3669), this review will focus on evaluation of the new development tools and additional features incorporated into this current release. The system requirements for Origin 7.5 are Microsoft Windows 98, ME, NT (version 4.0 SP6 or later), 2000, or XP; a 133 MHz or higher Pentium compatible CPU with at least 64 MB of RAM (Windows XP requires at least 128MB RAM) and a CD-ROM drive; and at least 120 MB of available hard disk space and an SVGA display or better. Internet Explorer 5.0 or later is required to view the HTML help files included with Origin 7.5. Multimedia tutorials of several of the newly added functions are included, along with standard help files to assist user learning. More extensive support in the form of help files, technical articles, a knowledge database, and user forum is provided on Origin's Web site. Notably, the multimedia tutorials serve as quick learning tools and easily guide inexperienced users stepwise through many of the advanced features. To get the most out of this learning tool, a monitor with a display resolution greater than the suggested minimum of 1024 × 768 is recommended, as portions of the tutorials display off screen, requiring needless scrolling to view the information.

A very attractive new benefit is the inclusion of an Import Wizard that allows users to import data files more easily from various scientific software formats such as those generated from a spectrometer or from other professional programs for data acquisition and analysis. The Import Wizard supports text, binary, and a variety of well-known file formats (.WAV, .SPC, .DBF, .DIF). The added flexibility to make custom filters with the included Origin C programming language saves more advanced users considerable data workup and processing time. This is especially true for those who want to automate schemes for importing data from other programs or laboratory instruments. Also included in this release is a convenient AutoUpdate feature that rapidly recalculates processed data when changes are made within spreadsheets. This feature is typically absent in most high-end plotting packages, but is standard in most basic spreadsheet programs. Now with Origin 7.5 there is no need to

rerun macros or manually transform or recalculate data column by column after initial workup. Spreadsheets and plots can be dynamically updated by simply checking a box on the dialogue console to enable the AutoUpdate feature when setting the parameters for the initial calculation. The graphing features have also been dramatically improved in Origin 7.5. Significant upgrades include the ability to copy and paste preferred graph formats and styles from one graph onto another and the ability to configure a Graph Theme Gallery using the Theme Editor option. This allows for consistent formatting and display of data sets and plots across multiple data collections.

Another powerful new feature is the Origin Automation Server that enables direct interconnectivity with Microsoft Excel, Visual Basic, or National Instruments LabVIEW software programs. The Automation Server permits remote harnessing of Origin's advanced analysis and graphing capabilities by querying programming functions directly from these other commercial software programs. For those who wish to remain faithful to Excel for spreadsheet operations, Origin 7.5 now offers the ability to filter data directly and produce plots of publication quality within Excel. One caveat to this feature is that it requires special user programming in Visual Basic to call Origin programming functions within the Excel software. The Automation Server additionally supports data exchange between Origin and LabVIEW virtual instruments (vi's). These vi's allow data acquired in LabVIEW to be saved directly into an Origin project file. In addition, Origin 7.5 interfaces with MatLab and permits use of the MatLab Console as well as data transfer from MatLab. It can also import .MAT files.

Overall, we highly recommend the purchase of Origin 7.5. Once again Origin's developers have extended the flexibility and versatility of this already excellent plotting and analysis software package. The price of the academic version has been reduced \$40 from previous editions. Although only a few key improvements have been added since version 7.0, the addition of new development programming tools and time-saving graphing and analysis features are enthusiastically welcomed and should quickly convince current users to purchase the 7.5 upgrade. Prospective first-time purchasers will be hard pressed to find a more comprehensive, competitively priced plotting and analysis package available on the market.

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