

OriginPro 9.1: Scientific Data Analysis and Graphing Software—Software Review

■ INTRODUCTION

OriginLab Corporation has released OriginPro 9.1, the latest version of their software for data analysis and graphing.¹ Previous versions of OriginPro software have received uniformly positive reviews, and this version is equally useful and user-friendly.^{2–4} OriginPro 9.1 is an excellent data analysis program that allows users to easily manage and analyze data and create quality graphs and figures for publication.

■ SYSTEM REQUIREMENTS AND INSTALLATION

OriginPro 9.1 is compatible with Microsoft Windows XP or later, requiring a minimum of a 1.5 GHz Pentium compatible processor, 1 GB of RAM, and 2 GB of disk space. The program was evaluated on a 2.4 GHz Intel Core 2 Duo with 2 GB of RAM running Windows 7. No crashes or unusual slowdowns were encountered. Using the software requires an Internet-based activation, so Internet access is required. The commercial price for OriginPro 9.1 is \$1800; the government price is \$1525.

■ FEATURES

Among the most powerful features of OriginPro 9.1 are the graphing making tools. The tools included in OriginPro 9.1 are highly versatile and allow users to modify the figure however they see fit. A variety of 2-D and 3-D graphs are available for the user to choose, including histograms, line graphs, scatter plots, 3-D colored surface graphs, 3-D scatter plots, and several others. The interface used to create these graphs is intuitive and user-friendly, allowing users to create complex graphs with ease. Nearly all aspects of the plots are customizable so that the program generates graphics that are of professional quality and are ready for any publication or presentation. OriginPro lets users export created graphs into a large range of file types to fit any need.

In addition to graphical presentation, this software provides a large array of analysis tools and curve-fitting algorithms. These include standard linear fits as well as several nonlinear data fitting functions, such as exponential and logarithmic functions, polynomial functions, waveform functions, and many others. If data analysis requires fitting to custom functions, OriginPro gives users the option to create unique data fitting algorithms as well, allowing users to mold the program to their specific needs. The software also provides means for quick and efficient analysis of large data sets, allowing users to analyze multiple sets of similar data simultaneously. Additionally, OriginPro 9.1 automatically performs several useful statistical tests, such as ANOVA tests, correlation coefficients, and residual plots, when calculating any fit, allowing users to quickly determine the quality of a fit.

Finally, in addition to the above, OriginPro includes code-building software that lets users fit the program for unique applications. It is compatible with C and provides tools for writing, compiling, and executing these programs. Overall,

OriginPro is one of the best data analysis programs available to researchers today. The powerful data analysis methods along with the versatile, easy-to-use data presentation features make OriginPro 9.1 a top competitor among data analysis programs available today.

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Notes

The authors declare no competing financial interest.

■ REFERENCES

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