
Subject: [ANN] IGOR Pro 4

Posted by [larryh](#) on Tue, 10 Oct 2000 07:00:00 GMT

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The following announcement of IGOR Pro 4 may be of interest to readers of this newsgroup for two reasons: (1) many people use IGOR in conjunction with IDL and (2) IGOR may be a better tool for people dealing with experimental data and creating publication quality graphics. Also, IGOR is MUCH less expensive than IDL.

Although the features list for IDL and IGOR are similar, the programs come from very different backgrounds. If you download the demo version, be sure to play with the examples and then run the guided tour to avoid excessive "culture shock."

WaveMetrics is proud to announce the immediate availability of the next major revision to its graphing and data analysis program. IGOR Pro 4 is the latest in a long line of enhancements dating back to IGOR 1.0 in Jan 1989.

IGOR Pro runs on Macintosh and Windows and is used by tens of thousands of scientists and engineers world-wide. For general information on IGOR, pricing or to download a demo version, please visit our web site:
<http://www.wavemetrics.com/>

The remainder of this note is meant for people already familiar with IGOR Pro 3.1 and describes the new features along with ordering information.

IMPORTANT MACINTOSH NOTE: As of IGOR Pro 4, the minimum requirement is a PowerPC running MacOS 8.5 or later. 68K machines are no longer supported.

ADDITIONAL MACINTOSH NOTE: IGOR Pro 4 has not yet been "carbonized", but we plan on starting that task soon.

NEW FEATURES

The full list of new features and changes is quite long. It is provided in the Igor4 release as a help file titled "What's new In Igor Pro 4." The following list is just the highlights. Also, visit:
<http://www.wavemetrics.com/Products/IGORPro/IP4newfeatures.html>

Curve Fitting:

The curve fitting user interface has been thoroughly revamped and provides "one-stop shopping" for virtually all curve fitting features. For example, the curve fit dialog can assist in creating or editing user-defined functions, specifying initial guesses, and setting simple constraints. New built-in fitting functions include HillEquation, Sigmoid, Power, lognormal, Gauss2D and Poly2D. You can command IGOR to calculate confidence bands and coefficient confidence intervals.

User Interface

The various axis related dialogs have all been combined into a single revamped dialog that also supports features that previously had to be executed on the command line. Likewise, the annotation dialog has been modernized and made simpler to use.

Packages Feature

A new mechanism provides easy access to user or WaveMetrics written procedure packages. Most notable is the completely revised and downright spiffy Polar Plot package along with the very useful Transform Axes, Global Fitting and ANOVA packages.

Graphing Improvements

You can now cause axes to be drawn with purely user-defined tick mark positions and labels. Date/Time axes have been greatly improved. IGOR can now create true waterfall plots. You can create and edit color scales using the revamped annotation dialog. You can now attach tags and cursors to images. You can now have crosshair cursors instead of icon cursors and cursors can now be "free roaming." A new arrow marker mode eases creation of vector plots. In most cases image plots will print much faster. You can now export graphics in various bitmap formats such as JPEG and TIFF (requires QuickTime 4).

Page Layout Improvements

You can now select and operate on multiple objects in the layout layer. The new Align submenu in the Layout menu allows you to align objects in the layout layer. New commands are provided to make it easier to format objects on the page and to ease the creation of stacked graphs.

Table Improvements

You can display date data using a wide variety of date formats. You can display and edit elapsed time, fractional seconds and negative time in time-formatted columns. You can view and edit dimension labels and can display data in hexadecimal and octal.

Data Browser Improvements

The new Data Browser allows you to preview your data graphically, to view and edit properties of waves and variables, to sort objects alphabetically, and to focus on deeply buried data folders.

Help System Improvements

The new Help Browser includes the ability to search all help files, procedure files and notebooks. Modeless help is provided for functions and operations. The Help Browser provides a display of all shortcuts and one-click access to online manual.

Notebook Improvements

You can do a find across multiple windows. You can now export a notebook as HTML.

Programming Improvements

IGOR's user-level programming environment has been greatly extended. New flow control techniques include for-loops, numeric and string switch statements and the elseif statement along with ||, && and the ?: constructs borrowed from C. Functions can now be private to a given procedure file and symbolic constants can be defined for use in a procedure file. You can now send results in one function back to the calling function using pass-by-reference and you can pass a function to another function. Text in procedure windows is displayed with Syntax Coloring. You can set breakpoints and can command IGOR to break on error to bring up the new symbolic debugger which allows you to single step your code and view (and even change) variables.

Control Improvements

You can create professional user-interfaces to your code using the new ListBox, GroupBox, TitleBox, Slider and TabControls. You can now select multiple controls and then align, distribute, move or cut copy and paste. Controls can be made invisible or disabled. You can create a PopupMenu control that displays colors or dashed-line styles. It is now easier to make control panels that look and work properly when transferred between Mac and Win.

Data Import And Export Improvements

The LoadWave operation supports "fixed-field" (FORTRAN-style) files and allows you to specify parameters on a column-by-column basis. LoadWave can now handle a wide variety of date formats and now supports elapsed time, fractional seconds and negative time in time-formatted data. The new ImageLoad and ImageFileInfo operations handle various graphics file formats including GIF, JPEG and TIFF while the new ImageSave operation saves waves in various graphics formats. Some of these formats require QuickTime 3.0 or later.

New Analysis operations and functions:

WaveMeanStdv ConvexHull FindRoots FindValue FindSequence FastOp IntegrateODE poly2D Optimize

New Matrix operations and functions:

MatrixDet (determinant) MatrixTrace MatrixRank MatrixEigenV MatrixLLS
MatrixLinearSolve MatrixSchur MatrixDot

New Image Processing operations:

ImageRemoveBackground ImageStats ImageBoundaryToMask ImageWindow ImageSeedFill

New 3D Analysis operations and functions:

BoundingBall Interp3DPath SphericalTriangulate SphericalInterpolate Project
Triangulate3D

New Installer

We are now using a new installer that permits much easier web-based updating to the latest version of IGOR. You can simply double-click on an Icon to initiate an automatic download of any new or changed files.

POLICY CHANGE

As of IGOR Pro 4, we no longer differentiate between Mac and Win products. You get a single activation key which can be used on either platform. We do still want to know which platform you are using, however.

In 3.1 we warned that image processing might be split out as a separate extra-cost package. We have decided against this and image processing is still included in IGOR Pro 4.

ORDERING INFO

As of IGOR Pro 4, we now have a secure web page for ordering with a credit card (Master Card and VISA only). Also new is the ability to receive your copy of IGOR via electronic download with the CD being optional (perhaps as a backup).

For pricing or to order, please visit:
<http://www.wavemetrics.com/Order/index.html>

We also accept orders via email, phone or fax:
Sales email: sales@WaveMetrics.com
Phone: (503) 620-3001
Fax: (503) 620-6754

Support email: support@WaveMetrics.com

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