

Productivity

Version: 8.1 8 7.5

	8.1	8	7.5
Batch Processing with Summary Report Using Analysis Templates™	✓		
Batch Peak Analysis of Multiple Datasets Using Theme	✓		
Batch Peak Fitting of Multiple Datasets Using Peak Analyzer Theme	Pro		
Favorites Folder in Project Explorer	✓		
Slide Show of Graphs at any Folder Level	✓		
Share Files Using User Files Folder Across Multiple Computers	✓		
Improved File Transfer Dialog for Upgrade Users	✓		
Theme Support for Worksheets and Matrix Sheets	✓	✓	
Theme Support to Save Dialog Settings	✓	✓	
Recalculation of Results on Data or Parameter Change	✓	✓	
Analysis Templates™ with Custom Report Sheets for Repeat Analysis	✓	✓	
Consolidated Reports with Collapsible Tables	✓	✓	
Re-Import Data Files Using Saved Settings, to Update Worksheet or Matrix Data	✓	✓	
Share Files Using Group Folder	✓	✓	
Autosave Projects to Temporary File	✓	✓	
Theme Support for Graphs	✓	✓	✓
Import Wizard Filter for Repeat Import of Similar Data	✓	✓	✓
Batch Print Selected Worksheets, Graphs, and Layout Windows	✓	✓	✓

User Interface

	8.1	8	7.5
Password Protection at Project Level	✓		
Audit Log of Project Saves, with Optional Password Protection	✓		
Menu Customization - Add New Menu Items or Remove Existing Ones	✓		
Shortcuts for Windows in Project Explorer	✓		
New Slide Index Column in Project Explorer for Graphs and Layout Pages	✓		
Toolbar for Data Markers and Locks	✓		

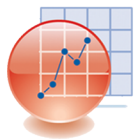
User Interface

Version: 8.1 8 7.5

	8.1	8	7.5
GUI for Defining Variables in Set Values Dialog	✓		
Full-Screen View for Graphs, with Aspect Ratio Maintained	✓		
More Options in Worksheet Properties Dialog for Formatting Worksheet	✓		
Global Setting for Significant Digits	✓		
Workbooks and Matrices with Multiple Sheets and Rich Text Cell Formatting	✓	✓	
Long Name Support for Windows and Worksheet Columns	✓	✓	
Sparklines on Column Headers Display Small Graph of Data for Quick Inspection	✓	✓	
Embed Graphs, Images, and Notes in Worksheet Cells	✓	✓	
Insert Links in Worksheet Cells to Other Cells, Including Report Sheets	✓	✓	
Sampling Interval Support for X-Columns	✓	✓	
Workbook Organizer Panel for Workbook/Column Properties and Metadata	✓	✓	
Drag Range Selection to Automatically Extend or Duplicate Data	✓	✓	
Drag and Drop Sheets to Remove from or Add to Workbooks	✓	✓	
Click-and-Drag to Adjust Row Height and Column Width in Worksheets and Matrices	✓	✓	
Auto-Size Option for Worksheet and Matrix Columns	✓	✓	
Multiple Matrix Objects in a Single Matrix Sheet	✓	✓	
Cursor Tool and Data Information Box with Support for Multiple Cursors	✓	✓	
Tool to Annotate a Specific Data Point	✓	✓	
Regional Data Selector/Mask Tool	✓	✓	
Categorized Flyout Toolbar Buttons	✓	✓	
Lock Icon on Output Columns to Indicate Recalculate Mode: Manual or Auto	✓	✓	
Preview of Results in Analysis Dialogs	✓	✓	
Quick Help Window with Keyword Search	✓	✓	
Option to Switch Language of Interface	✓	✓	
New Pack/Unpack Tool with New OPX File Format	✓	✓	
Control+Select Non-adjacent Worksheet Columns	✓	✓	✓
In-Place Text Editing	✓	✓	✓
Click-and-Drag to Resize and Rotate Text and Drawing Objects	✓	✓	✓



OriginLab Corporation
One Roundhouse Plaza, Suite 303
Northampton, MA 01060 USA



ORIGIN® 8.1

The Data Analysis and Graphing Workspace

Reasons to Upgrade*

User Interface

Version: 8.1 8 7.5

	8.1	8	7.5
Drawing Tools, Including Poly Line, Freehand, Polygon, Free-Form	✓	✓	✓
Plot Setup Dialog Simplifies Plotting Data from Multiple Worksheets	✓	✓	✓
Graph Template Library	✓	✓	✓
Formatting Support for Multiple Selected Objects	✓	✓	✓
Object Formatting (Style) Toolbar (Color, Hatch Pattern, Border Type, Border Width)	✓	✓	✓
Text Format Toolbar (Font, Size, Bold, Italics, Underline, Sub/Superscript, Greek)	✓	✓	✓
Organize Large Projects with Project Explorer	✓	✓	✓

Import and Export

	8.1	8	7.5
Export All Graphs in Project Explorer to PowerPoint®	✓		
Export Worksheet as a Multi-Page PDF Document	✓		
Export ASCII Data to Existing File with Append or Replace Options	✓		
Import Data in Unicode ASCII, CDF, and HDF5 Formats	✓		
Import Binary 2D Array	✓	✓	
Graphically Construct SQL Queries, Save Named SQL Query	✓	✓	
New Import Options: pCLAMP 2.0, NI DIAdem/TDM, ETAS MDF, JCAMP-DX, NetCDF	✓	✓	
Import Wizard: Multiple Delimiter Support	✓	✓	
Import Wizard: Option for Removing Quotes within Imported CSV Data Files	✓	✓	
Import Wizard: Improved and Expanded Variable Extraction	✓	✓	
ASCII and Binary Import Wizard Provides Visual Feedback During Import	✓	✓	✓
Send Data to Origin Using LabVIEW™ VIs for Origin	✓	✓	✓
Transfer Data From MATLAB® and Import Workspace Data	✓	✓	✓
Drag-and-Drop Data Files from Windows Explorer into Origin	✓	✓	✓
Import Data From MINITAB®, SigmaPlot®, and Thermo Galactic® SPC Files	✓	✓	✓
Import and Export Image (Raster) Files	✓	✓	✓
Graph Export Formats: AI, CGM, EPS, TIFF, PDF, JPEG, EMF, PSD, & More	✓	✓	✓

Graph Types

Version: 8.1 8 7.5

	8.1	8	7.5
Ternary Contour Plot	✓		
Probability Plot Including Weibull Distribution	✓		
Q-Q Plot	✓		
Multiple Y Axes Plot	✓		
Scatter Central Plot	✓		
2D Black & White Pie Chart	✓		
Windrose Plot: Generated from Raw or Binned Data	✓		
Contour Plot from XYZ Data Using Triangulation	✓	✓	
Polar Contour Plot	✓	✓	
Stacked Lines Plot Using Y-Offset	✓	✓	
Scatter Matrix Plot	✓	✓	
Inset Graph and Offset Axes Templates	✓	✓	✓
Image Graphs with Profile Lines, and Image Histograms	✓	✓	✓
Smith® Chart	✓	✓	✓
3D Pie Chart	✓	✓	✓
Column Scatter Graphs	✓	✓	✓
XYXY Vector (Tail-to-Head Data)	✓	✓	✓
Basic 2D, 3D, Contour, and Statistics Graphs	✓	✓	✓

Graph Customization

	8.1	8	7.5
Masking Support in Line Plots	✓		
Update or Reconstruct Legend at Graph Layer or Page Level	✓		
Double-Log Reciprocal Axis Scale: $\ln(-\ln(1-x))$	✓		
Missing Value and Grid-Line Skip Support for 3D Surface Plots	✓		
Color Mapping of 3D Bar Plots Using Z Values	✓		
Major and Minor Level Support for Contour Plots	✓		
Improved Support for Color Palettes for Contour Plots	✓		
Select and Customize Single Data Points in a Plot	✓		



OriginLab Corporation
One Roundhouse Plaza, Suite 303
Northampton, MA 01060 USA

USA: 1-800-969-7720 INT'L: +1-413-586-2013 FAX: 1-413-585-0126
EMAIL: info@originlab.com WEB: www.originlab.com

OriginLab and Origin are registered trademarks of OriginLab Corporation. All other brand and product names are trademarks of their respective owners.

* For a complete list of new features, please visit our website. ** Available with the Developer Kit only.

Graph Customization

Version: 8.1 8 7.5

	8.1	8	7.5
Add or Modify Layer Title Text Object Attached to Layer	✓		
Extract Data Points for Any or All Contour Lines	✓		
Align and Size Multiple Layers and Text Using Object Edit Toolbar	✓		
Use Column Long Name, Units, and Comments for Axis Titles and Legend	✓	✓	
Add Tables to Graphs, Parameter Values May Be Linked to Worksheets	✓	✓	
Copy-and-Paste Table from Worksheet into Graphs as a Table	✓	✓	
Worksheet Parameter Row for Annotating Each Curve in 2D Waterfall Graphs	✓	✓	
Custom Boundary for Contour Graphs Using Datasets	✓	✓	
Plot Same Column Multiple Times, Such as Different Ranges, in a Single Graph Layer	✓	✓	
Speed Mode Dialog for Controlling Speed Mode Settings of Graphs in the Project	✓	✓	
Automatically Create a Single Legend for All Layers in Graph	✓	✓	✓
Copy and Paste the Format of One Graph Element onto Another	✓	✓	✓
Customize the Format Increment Lists and Color Palettes for Grouped Data	✓	✓	✓
Edit Many Data Plot Properties Using the Style Toolbar	✓	✓	✓
Legend Displays Individually Edited Data Points	✓	✓	✓
Apply Color Palette to Image View of Matrix Data	✓	✓	✓
Manually Specify Tick Marks and Tick Labels for an Entire Axis	✓	✓	✓
Color Scale Object Supports Label Increments	✓	✓	✓
Offset Plotting of Duplicate Points	✓	✓	✓
Print Graph to Multiple Pages	✓	✓	✓
Expanded Set of Built-In Symbols (Approximately 100)	✓	✓	✓
Individual Contour Line and Level Control	✓	✓	✓
Use Color Variations or Symbol Size to Represent Another Dimension	✓	✓	✓
User-Defined Symbols Using Bitmaps	✓	✓	✓

Data Handling

Version: 8.1 8 7.5

	8.1	8	7.5
New Find and Replace Tool	✓		
Unstack Worksheet Columns Using Grouping Variables	✓		
Recalculate Support for Worksheet Data Extraction	✓		
Improvements to Worksheet to Matrix Gridding	✓		
Remove Duplicate Data in a Column	✓		
Trim Missing Values in a Worksheet	✓		
Merge XY Data According to X Values	✓		
Data Fill: Drag Fill Handle to Auto-Fill Data, Duplicate or Extend Values	✓	✓	
Script-Enabled Set Column Values Dialog with Range Variable Support	✓	✓	
Custom Date and Time Formatting Saved with Workbook	✓	✓	
Split Color Image Into RGB Channels	Pro	Pro	
Intensity/Color Adjustment for Images	Pro	Pro	
Spatial Image Filter (Blur, Noise, Sharpen, Edge Detect)	Pro	Pro	
Image Rotate, Flip, Shear, Auto Trim	✓	✓	
Categorical Data Support (Nominal and Ordinal)	✓	✓	✓
Image View of Data in Matrix Window	✓	✓	✓
Random and Regular XYZ to Matrix Conversion	✓	✓	✓
2D Binning of Worksheet Data	✓	✓	✓
Transpose Worksheet, or upon Clipboard Paste	✓	✓	✓

Data Analysis

	8.1	8	7.5
Linear Fit with Support for X-Error	Pro		
Pivot Table Feature	✓		
Reduce Data: Remove Every Nth Point or Remove Points at a Specified X Increment	Pro		
Remove Duplicate Data Points Option	✓		
Normalization Across Multiple Columns or Curves	✓		
Panel Tool for Rise- or Fall-Time Analysis	Pro		
Compute Surface Area of Matrix Data	Pro		
Create Upper and Lower Envelopes for Curves	Pro		



OriginLab Corporation
One Roundhouse Plaza, Suite 303
Northampton, MA 01060 USA

Data Analysis

Version: 8.1 8 7.5

	8.1	8	7.5
New Functions for Set Column Values Including Date/Time and String Functions	✓		
Find X Coordinate, Given Y, for a Curve	✓		
Support for Periodic Data in 2D Binning	✓		
Rotated 2D Gaussian Function for 2D Surface Fitting	Pro		
Panel Tools for Integration and FFT Analysis of Dataplot in Graph	✓	✓	
Partial Leverage Plot in Multiple Regression	✓	✓	
Better Support and More Functions for Manipulating Complex Numbers	✓	✓	
Improved Global Fitting in Nonlinear Fitting Tool	✓	✓	
Standardized Analysis Tools with Tree Structure for Settings	✓	✓	
Fitting Function Organizer	✓	✓	
Analysis Markers to Indicate Range Used for Analysis	✓	✓	
Improved Residuals Analysis with Additional Residuals Plots	✓	✓	
Command-Level Access to Data Analysis Routines	✓	✓	
Basic Image Processing	✓	✓	
Improved Find-X/Find-Y Tool for Linear, Polynomial, and Nonlinear Fitting	✓	✓	
New Find-Z Tool for Nonlinear Surface/Matrix Fitting	Pro	Pro	
Surface Fitting and 3D Interpolation	Pro	Pro	
Support for Smoothing in Curve Differentiation Tool	✓	✓	
Enhanced Image Analysis (Image Math, Mode Conversion, Color to RGB)	Pro	Pro	
Expanded Statistics (Parametric/Nonparametric Hypothesis Tests, Survival Analysis)	Pro	Pro	
Repeated Measures One-Way and Two-Way ANOVA	Pro	Pro	
Advanced Signal Processing: 2D FFT, Wavelet, STFT	✓	✓	
Automatically Update Worksheet Column Calculations	✓	✓	
Automatic NLSF Parameter Initialization	✓	✓	✓
Automatic Fitting Comparison Using F-test	Pro	Pro	✓
Define Fitting Functions Using Origin C	✓	✓	✓

Data Analysis

Version: 8.1 8 7.5

	8.1	8	7.5
Normality Test (Shapiro-Wilk)	✓	✓	✓
One-Way and Two-Way ANOVA; One Sample and Two Sample t-Test	✓	✓	✓
Survival Analysis (Kaplan-Meier, Cox Proportional Hazards)	Pro	Pro	✓
Low-Pass, High-Pass, Band-Pass, Band-Block, and Noise Threshold Filters	✓	✓	✓
Peak Finding and Intergrating	✓	✓	✓
Peak Fitting	Pro	Pro	Pro

Application Connectivity

	8.1	8	7.5
Automation Server Support	✓	✓	
Mathematica Link	✓	✓	
Matlab Console with GUI Support to Transfer Data between Origin and Matlab	✓	✓	
LabVIEW Connectivity: Improved Sub-VIs and Examples	✓	✓	

Programming

	8.1	8	7.5
LabTalk: Support for User-Defined Functions	✓		
Labtalk: Support for Event-Driven Script Execution	✓		
LabTalk: More Data Types Supported, Including New Range Data Type	✓	✓	
Easy Creation of Custom Tools with Automatic GUI, Using X-Functions	✓	✓	
Execute X-Functions from LabTalk Scripts and Menus	✓	✓	
Command Window with Auto-Complete Support for Scripting	✓	✓	
History Log Displays Previous Script Commands Entered	✓	✓	
Origin C: Create Custom Dialogs for Your Routines	✓	✓	
Origin C: User-Defined Classes	✓	✓	
Origin C: Access to *Full NAG [®] Mark VII Library	✓	✓	
Origin Project (*.OPJ) Files Accept Any Type of File Attachment	✓	✓	
C Compiler with ANSI C Language and Origin Object Support	✓	✓	✓
Code Builder Interface for Color-Coded Editing and Debugging	✓	✓	✓
File Packing/Unpacking Utility with Drag-and-Drop Installation	✓	✓	✓
Run Tools and Wizards Created with MS VC++	✓**	✓**	Pro



OriginLab Corporation
 One Roundhouse Plaza, Suite 303
 Northampton, MA 01060 USA