

**Graphing & Analysis** 

## **Key Features**

Use the following tables to check what new features have been added to Origin, compared to your version.

PROJECT MANAGEMENT	2024*	2024	2023*	2022*	2021*	9.*
Arrange Windows Based on Current Window Size	<b>√</b>	✓				
Float Windows outside of Origin Interface	<b>✓</b>	✓	<b>√</b>			
Keep Pinned Window When Switching Folders	<b>√</b>	<b>√</b>	<b>√</b>			
Scale Unmaximized Project File when Saved and Opened in Different Monitor Resolutions	<b>✓</b>	<b>√</b>	<b>√</b>			
Display Graphs From Different Folders and Seesaw Between Folders	<b>√</b>	<b>√</b>	✓			
Arrange Window with Option to Exclude Pinned Window or Include Minimized Window	✓	✓	✓			
Restore Window Size And Position	✓	✓	✓			
Add Folder Notes For Project Explorer Folders	<b>√</b>	<b>√</b>	<b>√</b>			
Duplicate Folder	✓	✓	<b>√</b>			
Arrange Windows with Custom Sorting, and Snap Windows	<b>√</b>	<b>√</b>	<b>√</b>	✓		
Notes Window with Rich Text and Style	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Adjust App Icon Spacing	✓	✓	✓	✓		
Hold Ctrl Key for Project Explorer Previews	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>		
Add System Template to Template Library	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>		
Provide Sample Project for System and Extended Templates	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Apply Color to Sheet Tab	✓	✓	✓	<b>√</b>		
New Image Window for Flexible Image Handling in Origin	<b>✓</b>	<b>√</b>	+	<b>√</b>		
New Book Browser Dialog to Organize and Manage User-defined or Extended Workbook and Matrix Templates.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Keep last autosaved project file Last-AutoSave.opju	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	

PROJECT MANAGEMENT (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
More Social and Resources are Added in Main Menu	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Object Manager for Workbook Window	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Preview and Thumbnail of Workbooks and Matrices in Windows Explorer and Project Explorer	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Backup Folder and Individual Backup File for Each Project for Recovery	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Save Files to or Open Files from Google Drive	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Automatic Audit Log for All Newly Created Projects	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
New Project File Structure (OPJU) with Significant Improvement in Project Size	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Unsaved Projects Auto Saved for 7 days	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Graph Preview, Comments Tooltip in Project Explorer	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Find String anywhere in Project	✓	✓	✓	✓	✓	
Updated Template Library to Access and Manage Extended and User-defined Graph Templates	<b>✓</b>	<b>√</b>	✓	<b>√</b>	+	✓
Lock Worksheet	✓	✓	✓	✓	✓	<b>✓</b>
Project Explorer Support for Left/Right Split of Panels	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Auto-Hide for Project Explorer and other Dockable Windows	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
Password Protection for Project Worksheet/Files, and Audit Log of Project Save with Optional Password Protection	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	+
Project Explorer Add Window Shortcut to Favorites Folder	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Add Comment to Origin Window/Folder	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
Project Explorer(PE) to Help Organize Origin Data	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓





BATCH PROCESSING	2024*	2024	2023*	2022*	2021*	9.*
Remove Locks across the Sheet, Window, Folder or Project	<b>✓</b>					
Batch Processing Files in Specified Folder	✓	✓				
Batch Plotting: Support Special Points, Support Plots with Intermediate Sheet	<b>✓</b>	<b>√</b>				
Duplicate Sheet with New Files: Customize One File and Apply to Other Files	✓	✓	✓			
Support Batch Plotting for Multiple X Plots e.g. Sunburst	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>		
Batch Processing Support for Start New Columns Import Mode	<b>✓</b>	✓	✓	<b>✓</b>		
Repeat Analysis Output to the Same Sheet	<b>✓</b>	✓	✓	<b>✓</b>		
Support Modify Row Range Of Input Data During Batch Process	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Duplicate the Selected Operation for Easier Result Comparison	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Support Pausing Auto Update/Recalculation	<b>✓</b>	<b>✓</b>	<b>✓</b>	+	<b>✓</b>	
Support Clone Import for Data Connectors	✓	✓	✓	✓	✓	
Batch Plotting Support Inexact Data Match and Column Offset Mode	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Reprocess & Update Buttons on Batch Processing Summary Sheet to Allow Changes to Template or Input Data	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Batch Peak Analysis Improvements: Recalculation Support, Sort Output Sheet by Peak Index, Auto Pick All Plots in an Active Graph Window	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Combine All Word Files into One File After Batch Processing	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Clone Current Project	✓	✓	✓	✓	✓	
Support Excluding Specified Operation when Click Recalculate Button	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Support to Add Data from Many Sheets/Books into a Combined Graph or an Existing Graph in Batch Plotting	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Allow Importing Data Directly into Embedded Matrix in Worksheet when Performing Batch Processing	✓	✓	✓	✓	<b>✓</b>	
Smart Plotting with Cloneable Graph Templates	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	

BATCH PROCESSING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Clone Workbook/Worksheet during Import for Batch Procesing	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Word Template for Report Creation in Batch Process	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Duplicate Workbook/Sheet Without Data	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>
Batch Plotting - Duplicate Graphs Using Data from Different Sheets/ Columns/Matrices	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	+	<b>√</b>
Generate Gadget Output for All Data Plots in the Graph	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Copy & Paste Formula and Labels between Columns	✓	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
Copy & Paste Fitting Operation	✓	✓	✓	✓	✓	✓
Repeat Analysis on All Plots in Graph or All Columns in Worksheet	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Batch Processing with Summary Report Using Analysis Templates <sup>TM</sup>	✓	<b>√</b>	<b>✓</b>	+	<b>√</b>	<b>√</b>
Batch Peak Fitting of Multiple Datasets Using Peak Analyzer Theme	PRO	PRO	PRO	PRO	PRO	PRO
EASE OF USE	2024*	2024	2023*	2022*	2021*	9.*
Redo and Improved Undo	✓					
Plot Graphs Directly from Image Window	<b>1</b>					
	' '					
Dynamically refer XYZ Title of Virtual Matrix to Column Label	<b>√</b>					
Dynamically refer XYZ Title of Virtual						
Dynamically refer XYZ Title of Virtual Matrix to Column Label Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling,	✓					
Dynamically refer XYZ Title of Virtual Matrix to Column Label Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point Support short-cut key for Fit	✓					
Dynamically refer XYZ Title of Virtual Matrix to Column Label  Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point  Support short-cut key for Fit Page to Layers  Option to Hide Project File	✓					
Dynamically refer XYZ Title of Virtual Matrix to Column Label Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point Support short-cut key for Fit Page to Layers Option to Hide Project File Path in Origin Title Bar Add Important Apps to	✓	✓				
Dynamically refer XYZ Title of Virtual Matrix to Column Label Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point Support short-cut key for Fit Page to Layers Option to Hide Project File Path in Origin Title Bar Add Important Apps to Origin Main Menu Dark Mode: several built-in dark themes, toggle dark mode on individual windows, customizable background color for graphs, customizable color mapping for color reversal, copy or export graph with or without dark	✓	✓				
Dynamically refer XYZ Title of Virtual Matrix to Column Label Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point Support short-cut key for Fit Page to Layers Option to Hide Project File Path in Origin Title Bar Add Important Apps to Origin Main Menu Dark Mode: several built-in dark themes, toggle dark mode on individual windows, customizable background color for graphs, customizable color mapping for color reversal, copy or export graph with or without dark mode effect	\[    \]   \[   \sqrt{   \]   \[   \s	✓				
Dynamically refer XYZ Title of Virtual Matrix to Column Label  Mini Toolbar Additions: Flip Axis, Label Min/Max in Contour, Edge Bundling, Edit Point  Support short-cut key for Fit Page to Layers  Option to Hide Project File Path in Origin Title Bar  Add Important Apps to Origin Main Menu  Dark Mode: several built-in dark themes, toggle dark mode on individual windows, customizable background color for graphs, customizable color mapping for color reversal, copy or export graph with or without dark mode effect  Multiple ROI and Enlarged Graphs Fit Page to Layers Include	\[    \]   \[   \sqrt{   \]   \[   \s	✓ ✓ ✓ ✓ ✓ ✓				





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EASE OF USE (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Drag and Change Axis Scale on Graphs	✓	✓				
Mini Toolbar Additions:Dark Mode, Copy Data from all Subranges, Clear Options for Worksheet Cells, Add Reference Line, Copy Single Plot from Group, Load Color List for Color Column, Edit Color for Color Cell, etc.	<b>√</b>	<b>✓</b>				
Image Processing: ROI on Image for Processing (Clip, Crop, Analysis ect)	<b>√</b>	+	<b>√</b>			
Data Highlighter to Create Category from Graph	<b>√</b>	<b>√</b>	<b>√</b>			
Copy Transposed Table	✓	<b>√</b>	✓			
Auto Update of Cell/Column Formula on Linked Variables	<b>√</b>	<b>√</b>	<b>√</b>			
Copy Paste Linked Image between Graph Windows	<b>√</b>	<b>√</b>	<b>√</b>			
Mini Toolbar Additions: Histogram Bin Settings, Box&Whisker, Enlarge a Region to Separate Graph, Unfreeze Pane in Worksheet, Flip Colormap for Matrix, Gray Scale Specific (Image), Sort X (Plot), Indicate Active Dataset (Legend), Project Explorer Folders, Worksheet on Graph, Auto Rescale, Plotting Against Left or Right Y Axis, Toggle Layer, Plot & Object Selectablity, Add Layer/Page Title, Freeze Pane, Protect Worksheet, Move Selected Worksheet Rows etc.	<b>√</b>	<b>√</b>	<b>√</b>			
Tooltip and F1 Help when Mousing over Menus	<b>✓</b>	<b>√</b>	<b>√</b>			
Auto Complete Hint for the Syntax of Function Argument	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Show Stats of Column Label Row Selection	<b>√</b>	<b>√</b>	<b>√</b>			
Ctrl+Alt+G Hotkey For Export Graph (Advanced) <last used=""></last>	<b>√</b>	✓	✓			
Ctrl+Shift+Arrow Keys For Column/Row Selection	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Move a Group of Sheets within Workbook	<b>✓</b>	<b>√</b>	<b>✓</b>			
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EASE OF USE (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Color Imprv: Ability to Combine Color List or Interpolate Color by Group	<b>✓</b>	<b>√</b>	<b>√</b>			
Simplified Symbol Map	✓	<b>√</b>	✓	✓		
Data Highlighter to Collect Data in Different Sheets	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Mini Toolbar Additions: Data Highlighter, Add Secondary Axis, Control Reference Lines, Object Manager, Hide Speed Mode Banner, Toolbar for Multiple Legends, Control Table Format, Flip Colormap, Add Fig Label for Layers, Toggle Link to Text for Text Objects, Digits Button for Table	<b>√</b>	✓	<b>√</b>	<b>√</b>		
Insert Image from Worksheet Cell, Image Window and Web Image to Graph	✓	✓	✓	✓		
Support Text Object on Graph/Layout to use Text from Notes.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Simpler Dialog and Operations for Graph Copy Paste	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Eyedropper on Select Color Control to Pick Color on Screen	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Object Manager Additions: Select Multiple Plots to Edit Together, Manage Graph Objects, Support Layout Windows	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Graph Annotator to Manually Add Annotated Data Points In Graph	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Status Bar, More Info: Masked/Unmasked Counts, Matrix ROI Stats, Image Coordinates, Linked Image File Path	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>		
Intelligence Code Completion when Working with Python	<b>✓</b>	✓	✓	<b>✓</b>	✓	
Data Slicer for Filtered Data Plots	✓	✓	✓	✓	✓	
Mini Toolbar: 3D Graphs, Add Linear Fit Curve, Asterisk Bracket, Text Label, Legend, Color Scale, Column Label Row and Tick Labels	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Undo Support: Recover Worksheet and Graph Windows	✓	✓	✓	+	✓	
Color Manager for Easier Color Editing and Management, Support Palettes of Other Software	✓	✓	<b>√</b>	✓	✓	



with Another Matrix

Replace 3D/Contour Plot Matrix

Rename Layer in Object Manager



EASE OF USE (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Excel-Like Formula Bar	✓	✓	✓	✓	✓	
Mask tool Support for 3D Graphs	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Object Manager: Reverse Plot Order for Graph, Select Multiple Sheets for Workbook	✓	✓	✓	<b>√</b>	✓	
Replace Plot X or Y with Column from Other Worksheet	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>	
More Plot-type Options for Insert > Plot to Layer	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Mini Toolbar for Easy 2D Graph and Worksheet/Matrix Customization	✓	✓	✓	<b>✓</b>	<b>✓</b>	
Copy Paste Data Plots between Graph Layers	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Compact Popup for Font and Line Format	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Add a Find Apps Menu Under Fitting, Peak Analysis, and Statistics menu	<b>✓</b>	✓	✓	✓	✓	
HTML/Markdown-based Reports for Repeat Analysis and Publishing	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Font Control for Notes Window	✓	✓	✓	+	✓	
Reorganized Plot Menu with More Appealing Icons	<b>√</b>	+	+	<b>√</b>	<b>√</b>	
Most-Recently Used Fonts Availble in Font Control	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Improving Group Folder Sharing with Better Support for Multiple Groups	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Windows-like Search	✓	✓	✓	✓	✓	
Support Numeric Units, pi, km, % etc in Worksheet and Graph	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Data Point Tooltip: Mouse over Data Points in Graph to View Useful Information of Data Point	<b>✓</b>	✓	✓	✓	✓	
Data Highlighter: Highlight Data Points in all Open Graphs that Originate from Same Row of Worksheet	<b>√</b>	<b>√</b>	+	+	<b>√</b>	
Plot Highlighting: Highlight Data Plot in Graph, other Plots Fade Away, Corresponding Worksheet Column is Highlighted	✓	<b>√</b>	<b>√</b>	✓	+	
Enhanced Master Page	✓	✓	✓	✓	✓	
New Fit Layers to Page and Set Scale Factor to Adjust All Layers to Have Tight Fit to Page	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	✓	
Customize Properties Across Graph Layers	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	

	2024		2022*	2021*	9.*
Active Window Indicator ✓	✓	2023*	<b>∠</b> 0∠∠	Z0Z1	- 0:
Enlarged Graph Using Scale-in Tool	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Enhanced Custom Formatting to Support Displaying Numbers in Percent, Fractions, Degrees etc.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
App Center for Easy APP Access and Maintenance	✓	✓	✓	✓	
Version-independent Folders for UFF, Licensing, Autosave etc, For Easier Migration to Future Versions	✓	✓	✓	✓	
Several Pre-installed Apps for Publishing and Curve Fitting	✓	✓	✓	+	
Enter Unicode Character by Typing Code and Pressing ALT+X	✓	✓	✓	✓	
Ignore Hidden Ccolumns/Plots From Analysis	✓	✓	✓	✓	
Customize Default Digits for Analysis Output in Each Analysis Tool	✓	✓	✓	✓	
Learning Center Dialog which Helps User to Get Start from Origin	✓	✓	✓	✓	
Mouse Hover Data Plot to Show Tooltip	✓	✓	✓	✓	
Switching Layers in Axis dialog ✓	✓	✓	✓	✓	
Provide Option to Use English in Analysis Report	✓	✓	<b>√</b>	✓	
Better Color Control to Pick more Colors and Define Custom Colors	✓	✓	<b>√</b>	<b>✓</b>	
Object Manager to Easily Arrange Plots and Layers	✓	✓	✓	✓	
Apps Gallery for Managing Apps Installed from File Exchange	✓	✓	✓	✓	
Improve Curve Fitting and Statistics Dialogs to be Tab-based for Easy Navigation	✓	✓	✓	<b>√</b>	
Collapsible Menus and Context Menus	✓	✓	✓	✓	
F(x) Column Label Row for Column Formula	✓	✓	✓	✓	✓
Set Multiple Column Values ✓	✓	✓	✓	✓	✓
Copy, Paste and Apply Graph Format and Theme	✓	✓	✓	✓	✓
Analysis Templates <sup>™</sup> with Custom Report Sheets for Repeat Analysis	✓	✓	✓	✓	<b>✓</b>
Consolidated Reports with Collapsible Tables	✓	✓	✓	✓	✓
Save Analysis Dialog Settings as Theme for Future Use	✓	✓	✓	✓	✓
Recalculation of Results on Data or Parameter Change	<b>√</b>	✓	✓	✓	✓





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GRAPH TYPES	2024*	2024	2023*	2022*	2021*	9.*
Hierarchical Edge Bundling	<b>√</b>					
Streamline Plot	✓					
3D XYZ Floating Bar	✓					
New Cloud Templates: Time Series Explorer, Distribution + Box + Data, 3D Horizontal Floating Bar	✓					
Heatmap with Split Tiles	✓	✓				
Tile Grid Map Graph	✓	✓				
New Cloud Templates: X Offset Scatter, 2Ys StackedColumn-Line, Periodic Table, Polar Heatmap	✓	✓				
Double-Y/Z Axis on a Single Layer	✓	✓	✓			
Sankey Map	+	+	✓			
Stacked / 100% Stacked Bar Map	✓	<b>√</b>	<b>√</b>			
Stack Lines by Y Offset or Column Label Rows in Browser Graph	<b>✓</b>	<b>√</b>	<b>√</b>			
Ternary Vector Plot	✓	✓	<b>√</b>			
3D Stacked Heatmap/Surface	✓	✓	<b>√</b>			
2D/3D Gradient Filled Colormap Bar	<b>√</b>	<b>√</b>	<b>√</b>			
New Cloud Templates: XRD with PDF, Double Y Before-After Plot, Split Violin with Separate Interval, Before-After Bar Chart, Correlation Chord Diagram, Y-Shared Double -X Plot etc.	<b>√</b>	<b>√</b>	<b>√</b>			
Bar Map and Pie Map	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Spiral Bar Chart	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Circular Packing Graph	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>		
Right Angle Ternary	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
New Cloud Templates: XPS Area, Cluster Plot with Confidence Ellipse, 3D Surface Map, Colormap Sunburst, Grouped Circular Bars, Grouped Line and Symbol, Contour without Contour Lines, Grouped Pyramid Plot, Energy Diagram, Gantt Chart etc.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Ridgeline Chart	✓	✓	✓	✓		
Sunburst Plot	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>		
Grouped Floating Bar	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Network Plot	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Stiff Diagram and Stiff Map, Durov Plot	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Ribbon and 100% Ribbon Chart	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	

GRAPH TYPES (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Parallel/Alluvial Plot from Summarized Data	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	
New Cloud Templates: Ellipse Plot, Error Rectangle Plot, Ternary Phase Diagram, 3D Bars in Two Planes, Anomaly Line Plot & Anomaly Plot, Arrow Plot, Corner Difference Histogram, Schoeller Diagram, etc.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Chord Diagram	<b>√</b>	✓	✓	<b>√</b>	✓	
Lollipop Plot	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	
Stack Browser Graph	<b>√</b>	✓	✓	✓	<b>√</b>	
Polar Vector Plot, Compass Plot	<b>√</b>	✓	✓	✓	<b>√</b>	
Browser Graph in Window View	<b>√</b>	✓	✓	✓	+	
Streamline Vector Plot	<b>√</b>	✓	✓	✓	<b>√</b>	
Beeswarm Plot	✓	✓	✓	✓	✓	
XYY 3D Side-by-Side Bars	✓	✓	✓	✓	✓	
Radial Plot, Stacked Radial Plot	<b>√</b>	✓	✓	✓	✓	
Bland-Altman Plot	✓	✓	✓	✓	✓	
Bullet Chart, Normalized Bullet Chart	✓	✓	✓	✓	✓	
Donut Charts and Improved Pie Charts	✓	✓	✓	✓	✓	
Sankey and Alluvial Diagram	+	+	✓	+	+	
Kite Diagram	✓	✓	✓	✓	✓	
Density Dots and Color Dots for Large Data	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	
Before - After Plot	✓	✓	✓	✓	✓	
Population Pyramid	✓	✓	✓	✓	✓	
Rug Plots	<b>√</b>	✓	✓	✓	✓	
3D Parametric Plot	✓	✓	✓	✓	✓	
XY and XYZ Heatmap, Split Heatmap, Heatmap with Labels	<b>✓</b>	+	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Parallel Plot	<b>√</b>	✓	✓	✓	✓	
Violin Plot	✓	✓	✓	✓	✓	
Cluster Plot	✓	✓	✓	✓	✓	
Row-wise Line Series with Error Bars	✓	✓	✓	✓	✓	
Tetrahedral Scatters/Lines/Line+Symbols	✓	✓	✓	✓	✓	
Stacked Histogram	✓	✓	✓	✓	✓	
Contour with Categorical Z Values	✓	✓	✓	✓	✓	
Trellis Plot: Double Y, Stacked Column, 100% Stacked Column and Box Chart	✓	✓	<b>✓</b>	✓	✓	
Bridge Chart (McKinsey-Style Waterfall)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	





GRAPH TYPES (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Double Y Box Chart.	✓	✓	✓	✓	✓	
Multi-Y Color Mapped Line Series	✓	✓	✓	✓	✓	
4D XYZ Surface with Custom Boundary	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Teillis Plot with Flexible customization options: Wrap Panels, Overlap Panels, Add Gap between panels	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Line Series, Statistics Bars	✓	✓	✓	✓	✓	
3D Stacked Bars, 100% 3D Stacked Bars with new Bar Shapes	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Interval Plot	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	
Heatmap	<b>✓</b>	✓	<b>√</b>	✓	<b>√</b>	
Column Scatter Plot With or Without Jitter	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Kernel Density Plot	<b>✓</b>	✓	✓	✓	<b>√</b>	
Grouped Column Plots, Grouped Box Chart	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
Variable Column/Bar Width	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>
100% Stacked Column/Bar Plots	<b>✓</b>	✓	✓	✓	<b>✓</b>	<b>√</b>
3D OpenGL Waterfall	+	✓	✓	✓	<b>√</b>	<b>√</b>
3D Ternary Surface	✓	✓	✓	✓	✓	<b>√</b>
Piper/Trilinear Diagram	✓	✓	✓	✓	✓	✓
Marginal Plot (Histogram, Box, Distribution)	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	+	✓
3D Surface/Bar Plot From Worksheet XYZ Columns	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
3D Bar Plot with Z Error Bars	✓	✓	✓	✓	<b>√</b>	<b>√</b>
3D Parametric Function Plot	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>
Radar/Spider Chart	✓	✓	✓	✓	✓	<b>√</b>
2D/3D Function Plot and 2D Parametric Function Plot	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
Multiple Intersecting Surfaces	<b>✓</b>	✓	✓	✓	✓	<b>√</b>
3D Vector Plot	✓	✓	✓	✓	<b>√</b>	<b>√</b>
3D Bar Plot	✓	✓	✓	✓	✓	+
Image/Contour Profile Plot	✓	✓	✓	✓	<b>✓</b>	<b>√</b>
Scatter Matrix	✓	✓	+	✓	+	<b>√</b>
Contour Plot	✓	✓	✓	✓	<b>√</b>	+
Basic 2D, 3D, and Statistics Graphs	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>

GRAPH CUSTOMIZATION	2024*	2024	2023*	2022*	2021*	9.*
3D Graph with Double Z Axis	<b>√</b>					
Graph Object Imprv: Ctrl+drag to create copy, Center, left or right align an object relative to graph page, Edit points for polyline, curve, polygon and region shapes	<b>√</b>					
Object Manager(OM) Imprv: Button to toggle plot or object view, Button to add notes, Show text contents in OM, Indicate objects out of page	<b>✓</b>					
Triangle as Head and Tail of Color Scale	✓					
Support Image in Data Annotation	✓					
Support Specified Droplines at Y=	✓					
Show Arrow along Line Plot	✓					
Skip data points in 3D scatter graph	✓					
Waterfall: Fill color by Y values	<b>√</b>					
Sankey: Hide Labels if Percentage Less than	<b>✓</b>					
Label Min & Max Points on Contour Graphs	<b>√</b>					
Edit Group Member in Graph Objects Group	<b>√</b>					
Align Single Layer relative to Page	<b>√</b>	✓				
Sheet Based Browser Plots	✓	✓				
XYZ Heatmap Supports Multiple Z	<b>✓</b>	✓				
Label Min & Max Points in Graph	+	✓				
Substitution Notation Support in LaTeX	✓	✓				
Index/Map Plot Elements by Column Label Row	✓	✓				
Sankey: Index Label and Color of Nodes to Specific Column, Sankey Map Support Pie Node	✓	✓				
Alluvial.: Sort Alluvial Node by Frequency, More Label Position Control	<b>✓</b>	✓				
Waterfall: Support Filling to Next Plot	✓	✓				
Apply Theme to Layer	✓	✓				
Annotation: Angle Annotation, 3 Types of Asterisk Bracket, Arc Tool	✓	✓	✓			
Built-in Support for LaTeX Equations in Graphs, Layouts and Worksheet Cells	<b>√</b>	+	<b>✓</b>			





GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Insert SVG Images in Graphs and Layouts with Support of further Processing and Real-time Update	✓	✓	✓			
Multiple Additional Planes for 3D Graphs	<b>✓</b>	✓	<b>✓</b>			
Label Reference Lines With a Column	✓	✓	✓			
Index the 3D Symbol Shape to a Column	<b>✓</b>	✓	<b>✓</b>			
Legend Imprv.: More Legend Info. Options, Attach Legend to End of Plot with Independent Information, Partial alignment of selected row Show/Hide Function Plot And Equation In Legend, Specify Sort Order for Point-by-Point Legends, Add Custom Color Block	<b>√</b>	✓	<b>√</b>			
Axis Imprv: Different Rescale Margin in Each End of Axis, Align Y Axis on Single-Layer Double-Y graph, Axis Arrow Heads in 3D Graphs	<b>√</b>	<b>√</b>	<b>√</b>			
Show Arrow in 3D Trajectory Graph	✓	✓	✓			
Colormap for Box Plots	✓	✓	✓			
Add Diagrammed Box-Style Legend to Box Chart	<b>√</b>	<b>√</b>	<b>✓</b>			
Spline Connection for 3D Lines	✓	✓	✓			
Insert Styled Worksheet In Graph or Layout	<b>✓</b>	<b>√</b>	<b>✓</b>			
Smart Skipping of Symbols in Plots of Large Datasets	<b>✓</b>	✓	<b>✓</b>			
Line-Symbol Plot With Automatic X Value Sorting	<b>✓</b>	<b>√</b>	<b>✓</b>			
Page/Layer Title with Proper Size, Wrap Text, etc.	<b>✓</b>	✓	<b>✓</b>			
Contour: Insert Multiple Custom Levels with Option for Turning on Lines and Labels	<b>✓</b>	✓	<b>✓</b>			
Alternate L-R Ticks And Labels Display in Stacked Plots	<b>✓</b>	✓	<b>✓</b>			
Toggle Selectability For Layer, Plot, Text, Etc. Using Mini Toolbar	<b>✓</b>	<b>√</b>	<b>✓</b>			
Direction Arrangement Control of Multi- Layer Graphs	<b>√</b>	✓	<b>√</b>			
Support Stacking Plot Horizontally	<b>√</b>	<b>√</b>	<b>✓</b>			
Set Default Reference Line Style, More Reference Line Label Locations	<b>✓</b>	✓	<b>✓</b>			
Separate Size Control for Minor Tick Labels	<b>✓</b>	✓	<b>√</b>			

GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Ability to Change Font/Sizes on Axis Labels and Axis Titles Simultaneously	<b>✓</b>	✓	<b>√</b>			
Text Label: Ability to Insert White Space, In-place Edit of Wrapped and Unwrapped Text	<b>√</b>	<b>√</b>	<b>√</b>			
Column Spacing Gap for Each Set of Linked Layers	<b>✓</b>	<b>√</b>	<b>√</b>			
Custom Display of Positive/Negative (+/-) Sign in Worksheet, Text Labels	<b>✓</b>	✓	<b>√</b>			
Hide Speed Mode Banner	✓	✓	✓	✓		
Distance Annotation on Graphs	✓	✓	✓	✓		
Show Unique Entries Only for Point by Point Legend	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Dashed Line Customization	✓	✓	✓	✓		
Box Chart: Connect Lines Support for Connection Types, Percentile Symbols Support Edge Thickness Control	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Wrap Text in Tick Labels that Contain No Spaces	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Align Option for Multi-line Data Labeling	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>		
Longer Minus Sign in Tick Labels	✓	✓	<b>√</b>	<b>✓</b>		
Remove Exponential Notation Common to All Tick Labels and Add to End of Axis	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Text Label Improvements: Support Block Substitution Notation, Support Separator to Control Paragraph Space	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Use Image File/Clipboard Image as User-defined Symbol in Scatter Plot	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
3D Bar Improvements: Support Fill Pattern, Support Bar from Top Plane	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Gradient Fills For Drawing Objects Such As Rectangle And Circle	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Inserting Image Improvements: Crop, Clip, Rotate Inserted Image In Graph, Edit Inserted Images, Set Image Coordinate, Set Layer Scale to Match Inserted Image Coordinates, Support Images with Transparent Background (SVG, PNG)	<b>√</b>	✓	<b>√</b>	✓		
New Arrange Layer Tool to Change Graph to M x N Layers	✓	<b>√</b>	<b>✓</b>	<b>✓</b>		





GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Enhance Grid Setting for Precise Reposition of Layers and Objects	✓	✓	✓	✓		
Centroid And Subset Support for Line And Symbol Plot	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Support Wrap Text And Drag to Resize Individual Row Height in Axis Tick Table	✓	✓	✓	<b>√</b>		
Vertical Writing in Tick Label for Japanese/Chinese	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Plot Multi-Panel Graph by X	✓	✓	✓	✓		
Contour Label Support for Multiple Labels per Contour Line, Follow The Flow Of Contour Line	<b>√</b>	✓	✓	<b>√</b>		
Step-Horz Connect Control for Links in Sankey	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Fill Area to Arbitrary Axis or Plot	✓	✓	✓	✓		
Merge Graphs to Layout page	✓	✓	✓	✓	✓	
Insert Image Background in Graph	<b>√</b>	✓	+	✓	✓	
Insert Map in Graphs	✓	✓	✓	✓	✓	
Group Plots Properties by Label Rows	<b>√</b>	✓	✓	✓	✓	
Histograms: Support Log Scale for Bin, Support Overlapping and Skewed Histogram	<b>√</b>	<b>√</b>	✓	<b>✓</b>	<b>√</b>	
Plot Color based on Positive Negative	✓	✓	✓	✓	✓	
Browser Graph: Increase speed, Spawn new graph with selected plots, Allow editing of metadata in navigation panel, Explore image stack of multiple matrix objects Using Browser Graph for Image, Contour or Profile plots.	<b>✓</b>	+	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Stack Lines by Offset in Column Label Row (Metadata)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Common Color Scale Display for Multiple Surface Plot	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Keep Layer Size when Merging Graph Windows	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~	
More Fill Area Options to Better Support Shapefile Data	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Create Horizontal/Vertical Line and Support Dragging Layer/Object in Line When Holding SHIFT Key	<b>√</b>	✓	✓	<b>√</b>	<b>✓</b>	
Abilitity to Turn Browser Panel on for Regular Graphs	<b>✓</b>	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	

GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
More Built-in Color Schemes	✓	✓	✓	✓	+	
Left, Right or Center Options for Tick Labels Alignment	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Offset Overlapped Points Vertically	✓	✓	✓	✓	✓	
Center Layer in the Page	✓	✓	✓	✓	✓	
Support Rescale Type for Ternary Coordinates	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Better Axis Display and Independent Histogram Binning Control in Scatter Matrix	✓	✓	✓	✓	<b>✓</b>	
Support Using Unicode Characters as Plot Symbols	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Fill to Relative Base in Stack lines by Y Offset Graph	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Special Points: Show Drop lines, Show Label using Flexible Syntax	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Heatmap Improved to Support Triangle Shape and Label Color Follows Colormap	✓	✓	✓	<b>✓</b>	<b>√</b>	
Apply Transparency to Symbol Fill Color Only	✓	✓	<b>✓</b>	<b>√</b>	✓	
Further Box Chart Improvements: Whisker/Error Bar Drawn on Top of Data, Whisker Plus/Minus Only,Mean & Median Symbol for Grouped Box, Data Point Masking	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Colormap: Specify Numeric Value for Middle Level in 3-Color Limited Mixing	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Zoom and Rescale tHotkey for 3D Graphs	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Skew 2D and Contour Plots by Adjusting Angles Between Axes	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	+	
Text Object and Legend Improvements: Support Wrap Text	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	✓	
Curve Tool for Freehand Drawing of Smoothed Line Object	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	✓	
New Preferences > Axis Options for Display of Zeros	✓	✓	<b>√</b>	<b>√</b>	<b>✓</b>	
Auto-rotate / Auto-hide Long or Overlapped Tick Labels	✓	✓	<b>√</b>	<b>√</b>	<b>✓</b>	
Faster Scatter and Contour Drawing Speed for Large Data	✓	✓	✓	<b>√</b>	✓	
Supersubscript and Align Columns Control in Text Object Properties Dialog	✓	✓	✓	<b>✓</b>	<b>√</b>	





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GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Axis Break Supports Proportional Unit for Each Segment	✓	✓	<b>✓</b>	<b>✓</b>	✓	
Pick Data Points from Graph	✓	<b>√</b>	✓	✓	✓	
New Annotation Dialog with More Controls for Object Customization	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
More Hatch Patterns, including Geology Patterns	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	
Dropline Supports Direction Control and Arrow	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Support More Bar Shapes for 3D Bars	✓	<b>√</b>	<b>✓</b>	<b>√</b>	✓	
Histograms: Label with Bin Counts, Percentage or Both	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	+	
Grouped Plots: Unbalanced Subgroups Can Display Grid Line Separators, Set Gaps by Dataset	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Support for all 2D objects in 3D graphs: Table, Image, Drawn Objects, Bubble Scale, OLE Object	✓	✓	<b>✓</b>	<b>✓</b>	✓	
Axis Improvements: Multiple Reference Lines and Shading Between in 2D Graphs; More Rescale Options, Tick Labels Combine Column Labels, Leader Lines For Special Ticks, Wrap Tick Labels for 3D Plots	<b>√</b>	+	+	<b>√</b>	<b>✓</b>	
New System Colors Give Your Graphs a Fresh Look	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	
Skip Weekend and Holidays in Financial Plot	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Text and Legend Improvements: Multi- line Spacing, Annotation Customization, Legend Text Color same as Legend Symbols, Drag Legend to Multiple Columns, Hide Legend of Hidden Plots, Reverse Order of Legend	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Show Symbol in 3D XYY Waterfall, Walls and Ribbons	<b>√</b>	✓	<b>√</b>	<b>✓</b>	✓	
Position Label/Metadata Anywhere on Data Plot	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Align Layers at Specified Value, Share Common Scale among Layers	✓	✓	✓	<b>✓</b>	✓	
New Tab-based Axis Dialog with Multi-axis Selection and Easy Navigation	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	





GRAPH CUSTOMIZATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Contour Improvements: Boundary Customization, Further Color Scale Customization	<b>✓</b>	<b>✓</b>	✓	✓	+	
Linear and Nested Bubble Scale for Bubble Plot	✓	✓	<b>✓</b>	✓	<b>✓</b>	
Custom Percentile and Jitter Points in Box Chart	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	✓	
Plot: User Defined Menu to Access Customized Templates	✓	✓	✓	<b>✓</b>	<b>✓</b>	✓
Smart Labels - Auto Position of Data Labels	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
User Defined Axis Scale Type	✓	✓	✓	✓	✓	✓
Multiple Axis Breaks with No Gap	✓	✓	✓	✓	✓	✓
Multiple Special Tick Labels	✓	✓	✓	✓	✓	✓
Isometric - Link Axis Length to Scale by X/Y Ratio	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓
More Legend Types: Box Chart Components, Point by Point, Categorical Values	<b>✓</b>	<b>√</b>	✓	<b>√</b>	<b>✓</b>	✓
Customized Color/Shape/Interior Increment List for Plot	<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>✓</b>	✓
3D Surface Improvements: Lighting Effect, Mesh, Flatten, Shift	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Zoom and Pan inside Graph Layer	✓	✓	✓	✓	✓	+
Customizable Data Info. Window to Read Coordinates and More	<b>✓</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>
Transparency and Gradient Fill Control in Graphs	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
Embed and Edit Microsoft Word, Excel and Equation Objects Inside Graphs and Layouts	<b>✓</b>	<b>√</b>	✓	✓	<b>√</b>	✓
Non-Linear Z-Axis, and Y- and Z-Value Colormap Support for Waterfall Plots	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	+
Move, Rotate, Skew and Resize 3D Graphs	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Axis Tick Locations Controls	✓	✓	✓	✓	<b>√</b>	+
Box Chart with Box/Whisker/Outliers Controls	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	+	+
Fill Area Under/Between Line Plots	✓	✓	✓	✓	+	+
Polar Plot with Azimuth and Radial Axis Controzls	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	+
Wrap Axis Tick Labels, Customize Individual Special Ticks, Custom Axis Scale Formula for 3D OpenGL Axis	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	

DATA MANAGEMENT	2024*	2024	2023*	2022*	2021*	9.*
Unstack/Split Date/Time data based on Year/Month, Week, Day and Hour	✓					
Join More Than 2 Worksheets by Matching Column and Merging Options	<b>✓</b>	✓				
Smart paste of Date&Time data from Excel	<b>√</b>	<b>√</b>				
Support Setting Format and Categorical for Column Label Row	<b>✓</b>	✓				
Binary Column Type for Test and Measurement Data	✓	✓				
Reduce Rows Imprv: Delete hidden rows, Delete whole row by missing or masked value in reference column	<b>√</b>	✓	<b>√</b>			
Freeze/Unfreeze Pane	✓	✓	✓			
Alternate Banded Rows for Worksheet, and Table In Graph	<b>√</b>	✓	<b>✓</b>			
Hide or Protect Sheets in the Workbook	<b>√</b>	✓	✓			
Wrap Rich Text In Worksheet	<b>√</b>	✓	✓			
Move Worksheet Rows Up/Down	<b>√</b>	✓	✓			
Merge Columns By Median, and Support Output Multiple Quantities	<b>√</b>	<b>√</b>	<b>✓</b>			
Convert XYZZZColumns to Matrix	<b>√</b>	✓	<b>√</b>			
Select Columns by Labtalk Script	<b>√</b>	<b>√</b>	✓			
Specify Row-Wise or Column-Wise Insertion of Multiple Images In Worksheet	<b>√</b>	✓	<b>√</b>			
Convert Link to Values	✓	✓	✓	✓		
Rich Text Support for Worksheet Cell Notes	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>		
Insert Comments and Notes to a Cell	✓	✓	✓	✓		
Cell & Column Formulas with Named Range and Auto-complete	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>		
Sort Column Or Worksheet by Categorical Order	<b>√</b>	✓	<b>✓</b>	<b>✓</b>		
Join Worksheets by Column	✓	✓	✓	✓		
Statistics on Region-of-Interest for Matrix Data on Status bar	✓	✓	<b>√</b>	<b>√</b>		
Convert All Matrix Objects To XYZZZ Columns In Worksheet.	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Copy Matrix Object to New Sheet/Book	✓	<b>√</b>	<b>✓</b>	<b>√</b>		
Clear Data in Region-of-Interest for Matrix	<b>✓</b>	✓	✓	✓		





DATA MANAGEMENT (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Copy and Paste Multiple Column Formulas (F(x)=)	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	
Append Worksheet Tool Support Appending to End of Each Column	<b>√</b>	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	
Convert Subregion of Worksheet to XYZ Columns	✓	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Define and use Python function in Set Column Values dialog	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Copy and Paste Notes Windows to Another Folder or Session	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Color Column with HTML Color Support	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Auto Conversion When Copy and Pasting Date/Time From Other Application	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Copy Space Separated Data into Single Cell	✓	<b>√</b>	✓	<b>✓</b>	<b>√</b>	
Extract Data from Oval, Polygon, etc. Region of Image	<b>√</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	
Improve Matrix Shrink to Support More Statistics	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Remove/Combine Duplicated Rows Tool Improvements: Support Multiple Reference Columns, Support Duplicate Tolerance	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
More Options Available for Splitting Worksheet by Reference Column	✓	<b>√</b>	<b>√</b>	+	<b>√</b>	
Support Sorting Results for Copy Column tool	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Matrix Slider Option in Place of Thumbnail Images	✓	<b>✓</b>	✓	✓	+	
Copy and Paste Data as HTML/EMF Table to Other Applications such as MS Word	✓	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Excel Like Absolute Cell Reference in Cell Formula	✓	✓	✓	<b>✓</b>	+	
Support Copy Subrange of Data with Column Label Rows	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	

DATA MANAGEMENT (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Duplicate Project or Workbook preserves cell formula	✓	✓	✓	✓	<b>√</b>	
Support Copy/Paste of Folders and Workbooks across Origin Sessions	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Filter Columns by Label Row	✓	✓	<b>√</b>	<b>√</b>	✓	
Support Splitting Columns by Specified Separator or Interval	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Extract Worksheet Rows by Random Sample	<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Copy Cell(s) and Paste to a Range	✓	✓	<b>√</b>	<b>√</b>	✓	
Conditional Formatting: Highlight Cells by Rules, Highlight Duplicate Cells, and Heatmap	<b>√</b>	✓	✓	<b>✓</b>	<b>√</b>	
Column List View for Worksheet to Display Only a Column List	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Copy and Paste Filter from One Column to Another	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Support Press Mouse Wheel in Worksheet to Scroll	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	
Auto Fill Column Label Row Contents to the Right	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Support Copying/Pasting Sheet across Origin Sessions	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
X-Function to Set Format of Selected Cells	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Maximum Number of Worksheets/ MatrixSheet in Workbook/MatrixBook Increased to 1024	<b>✓</b>	✓	<b>√</b>	<b>✓</b>	<b>√</b>	
Simpler Spreadsheet Cell Notation for Column Formulas	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Ability to Include LaTeX in Text Labels/Legends, and in Worksheet Header Rows etc.	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Embed Layout Window in Worksheet	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Select or Hide Columns in Worksheet by Column Label	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Search & Insert Function and Show Function Syntax Hint in Set Column Values Dialog Box	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	





DATA MANAGEMENT (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Customize Categorical Data Order and Apply it to other Columns	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Append Worksheet Row-wise, Columnwise, or by Matched Column	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	+	
Generate Patterned Data	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	✓
Sort Column by Values in Column Label Rows, Reduce Columns	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>
Lock Filter Condition in those Columns Linked to Source Columns	✓	<b>✓</b>	✓	✓	<b>✓</b>	✓
Excel-Like Data Filtering	✓	✓	✓	✓	+	✓
Floating Graphs in Worksheet	✓	✓	✓	✓	<b>✓</b>	✓
Split a Worksheet into Multiple Worksheets by Number of Columns/Rows, or by Column Label	<b>✓</b>	✓	✓	✓	<b>✓</b>	✓
XYZ Gridding in Linear or Logarithmic Scale	<b>√</b>	✓	✓	✓	+	✓
Reduce XY Data by Group, Reduce Data to Evenly Spaced X	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	PRO
Reduce Each Column in Worksheet by Combining Duplicate Rows	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Pivot Table	✓	✓	✓	✓	✓	+
Stack Columns and Unstack Columns	✓	<b>√</b>	+	<b>√</b>	<b>√</b>	+
Reduce Duplicate X Data, Reduce Data by Skipping Every N Points	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>
Worksheet Query (Extract Values from Worksheet)	<b>✓</b>	<b>✓</b>	+	<b>✓</b>	<b>✓</b>	<b>✓</b>
MISCELLANEOUS	2024*	2024	2023*	2022*	2021*	9.*
Dark Mode	<b>√</b>	✓				
urlo le T						
High Resolution Toolbar Button on 4K Monitors	<b>✓</b>	<b>√</b>	<b>√</b>			
9	✓	✓	✓			
Button on 4K Monitors		ŕ		<b>√</b>		
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution		ŕ		✓	✓	
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution and DPI  Show or Hide Pro Menu Commands		ŕ		✓	✓	
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution and DPI  Show or Hide Pro Menu Commands in Regular Origin  Much Faster Import, Drawing, Data Manipulation, Analysis and Recalculate	√ ✓ ✓ ✓ ✓	ŕ		✓ ✓ ✓	✓ ✓	
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution and DPI  Show or Hide Pro Menu Commands in Regular Origin  Much Faster Import, Drawing, Data Manipulation, Analysis and Recalculate Speed for Large Data	✓ ✓ ✓ ✓ ✓	ŕ	✓ ✓ ✓ ✓ ✓ ✓	\land	\ \ \	
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution and DPI  Show or Hide Pro Menu Commands in Regular Origin  Much Faster Import, Drawing, Data Manipulation, Analysis and Recalculate Speed for Large Data  Unicode(UTF-8) Support  Connection to OriginLab website using	✓ ✓ ✓ ✓ ✓ ✓	ŕ	✓ ✓ ✓ ✓ ✓ ✓		\land	1
Button on 4K Monitors  End Support for Saving Project as OPJ  Same Layout of Windows Arrangement in Monitors with Different Resolution and DPI  Show or Hide Pro Menu Commands in Regular Origin  Much Faster Import, Drawing, Data Manipulation, Analysis and Recalculate Speed for Large Data  Unicode(UTF-8) Support  Connection to OriginLab website using secure connection (https)  Zoom and Pan on Graphs, Worksheets,	✓ ✓ ✓ ✓ ✓ ✓	ŕ	✓ ✓ ✓ ✓ ✓ ✓	\(  \)	\frac{1}{\sqrt{1}}	✓ ✓

IMPORTING	2024*	2024	2023*	2022*	2021*	9.*
Support Connect to Web Online SharePoint Server, Open and save OPJU there	<b>✓</b>					
JSON Connecter: Support JSON5 format	<b>✓</b>					
Scan and Connect All files in Specified Folder	<b>✓</b>					
NetCDF Connector: Support NC Files Up to 4.9.2	<b>✓</b>					
Matlab Connector: Support MAT Files Up to 1.5.26	<b>√</b>					
Improve Speed for Import Excel Files	✓	<b>✓</b>				
XML Connector Support UTF-16 format	<b>✓</b>	<b>√</b>				
CSV Connector: Append Rows from Script, Better Support on Date and Time Data	<b>√</b>	<b>√</b>				
Auto Check TAB/comma/semicolon when Pasting Data	<b>√</b>	<b>√</b>	<b>√</b>			
Data Connector support Post Import Script	<b>✓</b>	<b>√</b>	<b>√</b>			
HTML Connector partial import and multi-table import	<b>✓</b>	<b>√</b>	<b>√</b>			
Import Excel support Boolean type	✓	✓	<b>√</b>			
CSV and Excel Connector Options for Sparklines, Renaming and Post Import Script	<b>√</b>	<b>√</b>	<b>√</b>			
Import Multiple GeoTIFF Files to Image Window or Stacked Matrices	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Import Web Images	✓	<b>√</b>	<b>√</b>	<b>✓</b>		
Copy/import Merged Cells from Excel, Assign Same Value to Multiple Origin Cells	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Connect to OneDrive and Google Drive	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
N42 Connector to Import N42 Files	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>		
CSV Connector: Auto-detect "yyyy- MM-dd HH:mm:ss,###" Date Format; Auto-detect Main Headers	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Import from SQLite Files Using Database Connector	<b>✓</b>	✓	✓	<b>✓</b>		





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IMPORTING (CON'T)	2024*	2024	2023*	2022*	2021*	9,*
Import and Reduce NetCDF File by Partial Import or Averaging During Import	+	<b>√</b>	<b>✓</b>	+	<b>✓</b>	
Unlock Imported Data for Data Connector from Menu	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Partial Import Support: Excel Connector, TDMS Connector, NetCDF Connector	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Data Connector for .RAW file format from Thermo Fisher Scientific	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Shapefile Connector	✓	✓	✓	✓	✓	
Import Wizard Supports Python-based Import Filter	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Matlab Connector Supports Opaque Variables Like Date Time, Table etc.	<b>√</b>	<b>√</b>	✓	<b>√</b>		
Data Connector for TDMS and Bruker DQL/RAW files	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
CSV Data Connector Support Append Rows	<b>√</b>	<b>√</b>	✓	<b>√</b>	+	
Connect to Multiple Files Support Specifying a Folder to Import	<b>✓</b>	<b>√</b>	+	<b>✓</b>	<b>✓</b>	
Connect to Multiple Files	✓	✓	<b>✓</b>	<b>✓</b>	✓	
Data Navigator Panel added to Workbook when Connecting to Multi-page Files	<b>√</b>	<b>√</b>	+	<b>√</b>	<b>√</b>	
CSV Data Connector Wild-card Support for Data Block Marker	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Database Connector Dialog Supports ODBC Connection by Data Source or String	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Multi-threaded ASCII import	✓	✓	✓	✓	✓	
10x Faster Import of Large Text Files	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	
Drag and Drop support of Data Connector	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Query and Pull Columns from OPJU Files	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	

IMPORTING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Data Connector Maintain Connection with Web File or Local File as Data Source (CSV, HTML, JSON, MS Excel, Origin Project and more)	+	✓	+	+	+	
Set Origin as Default Program to Open Data Files	<b>✓</b>	<b>√</b>	✓	<b>√</b>	<b>✓</b>	
Import Specified Column/Rows only in Excel and CSV	<b>✓</b>	✓	✓	✓	✓	
Source File Header Row to Show Imported File Name	✓	✓	✓	✓	✓	
Undo Import of ASCII, Excel and CSV	✓	✓	✓	✓	✓	
New Excel Import Dialog without Using COM Support	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	
More 3rd-Party Import Formats: ISF, SAS, BRUKER OPU	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	
Script after Import and Column Plot Designation for More Import Routines	<b>✓</b>	✓	✓	✓	✓	
Import SPSS Data Files	✓	✓	✓	✓	✓	
Importing OPJ	✓	✓	✓	✓	✓	✓
Import Mat File Structure	✓	✓	<b>✓</b>	✓	✓	✓
Specify Channel When Import MDF, NITDM, DIADem, Prism, pClamp, Matlab Data	✓	✓	✓	✓	✓	<b>✓</b>
File Import Menu Customization Dialogue	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
Import TDMS 2009, MZXML and Prism Files	<b>✓</b>	✓	✓	<b>✓</b>	+	✓
SQL Editor for Database Import	✓	✓	✓	✓	✓	✓
Import Excel, Multi-Line CSV and Binary 2D Array	<b>✓</b>	✓	✓	<b>✓</b>	✓	+
3rd Party Formats Support for pCLAMP 2.0, NI DIAdem/TDM, ETAS MDF,JCAMP-DX, NetCDF, HDF5 etc.	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	+
Graphically Construct SQL Queries	✓	✓	✓	✓	✓	✓
ASCII and Binary Import Wizard Provides Visual Feedback during Import	✓	✓	✓	✓	<b>√</b>	+
Import Images (PNG, GIF, TIF, TGA, PCX, PSD, WMF etc. (Convert to Raster))	<b>✓</b>	✓	✓	<b>✓</b>	✓	✓
Drag-and-Drop Data File from Windows Explorer into Origin	<b>✓</b>	✓	✓	✓	✓	<b>√</b>
Import Wizard Filter for Repeat Import of Similar Data	<b>✓</b>	✓	<b>✓</b>	<b>√</b>	✓	<b>√</b>



Auto Detect or Specify Long Name, Units and Comments in Excel Connector

Support Partial Import, Data Block Marker and Preview for CSV Data Connector



<u> </u>						
EXPORTING & PRESENTATION	2024*	2024	2023*	2022*	2021*	9.*
Support Exporting TIF/PNG file with Transparent Background	<b>✓</b>					
Add Datatip to the Exported SVG file	✓					
Export Worksheet Data as ESRI Shapefile (SHP)	<b>✓</b>	<b>√</b>				
Include Analysis Marker in Graph Export	<b>✓</b>	<b>√</b>	<b>√</b>			
Export Path with Clickable Link is Dumped to Messages Log	<b>✓</b>	<b>√</b>	<b>√</b>			
Copy Sheet or Selection as (HTML/EMF)	<b>✓</b>	<b>√</b>	<b>√</b>			
Export to Excel with Cell Formatting	✓	✓	✓			
Export Stacked Images or Multiple Graph Windows As GIF, TIFF, AVI	<b>✓</b>	<b>√</b>	<b>√</b>			
Export Graph to SVG Image Type	+	✓	✓	✓		
Export Data as GeoTIFF File	✓	✓	✓	✓		
Export/Update Worksheets as Tables in a SQLite Database File	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Simpler tool to Export Graph as Image	<b>✓</b>	<b>√</b>	+	<b>√</b>	<b>√</b>	
Export NetCDF Data from Matrix	✓	✓	✓	<b>✓</b>	✓	
Graph Export Settings can be Saved in Page	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Export Mulit-sheet Workbook as Excel File	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Copy Graph and Paste Directly to Online Documentation Tools such as Confluence Page	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Option to Export Multiple Graphs as a Single Multi-page PDF file	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Export Graphs with PE Folder Name Included in the Name of the Exported File	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	
Copy / Export User-defined Area of Graph Page	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Ignore Hidden Columns in ASCII Export	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Export Graphs in Subfolders of Project to Corresponding Subfolders	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

EXPORTING & PRESENTATION (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Send Graph to PowerPoint Improvements: Specify Graph List and Order, Specify Slide Layout and Style	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Create Movies from Origin Windows Using GUI Tool or Script	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Graph Export Supports Transparency for PDF and EPS Format	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
Export All Graphs to PowerPoint	✓	✓	✓	✓	✓	+
Export ASCII Data to Existing File by Appending or Replacing	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Slide Show Graphs and Layouts	✓	✓	✓	✓	+	✓
Export Worksheet as Image, WAV, NI TDM/TDMS File or Multi-Page PDF Document	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	✓
Graph Export Formats Include: CGM, EPS, TIFF, PDF, JPEG, EMF, PSD, etc.	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓	✓
Export Image to Raster File Format	✓	✓	✓	✓	✓	✓
GADGETS	2024*	2024	2023*	2022*	2021*	9.*
Data Extraction Gadget	✓					
Cluster Gadget: Support Edit Point to Change the Shape of the ROI	<b>✓</b>					
Vertical Cursor Gadget: Tag Points to a Worksheet	<b>✓</b>	<b>✓</b>				
Gadget Support to Output Results in the Same folder	<b>✓</b>	<b>✓</b>	✓			
Digitizer Imprv: Digitize from Image on Clipboard, Digitize with Log Scle	<b>✓</b>	✓	✓			
Cluster Gadget with Color Mapped Z Value Stats and Fade-out Outer Mode	<b>✓</b>	✓	✓			
Custom Label Support for Quick Fit/Statistics Gadgets	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Smart Gridline Removal for Digitizer Tool	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Cluster Gadget Supports Arbitrary Shape for ROI	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Gadgets Support Output to Clipboard	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Support Vertical Cursor Gadget on Linked Layers	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Output Gadget Results to Source Data Workbook	✓	<b>√</b>	<b>✓</b>	<b>✓</b>		



under Project File Folder in Windows Explorer



GADGETS (CON'T)	2024*	2024	2023*	2022*	2021*	9.*	RS AND GIS DATA HANDLING (CON'T)
Vertical Cursor Gadget: Compare Two Cursors, Show All Info in One Label	<b>✓</b>	✓	<b>√</b>	<b>√</b>	+		Extract the Region of Interes Shapefile-based) from Image
Allow to clear category settings for some points with Cluster Gadget	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		Apply Color Palettes to Geo
Integrate Gadget Now Supports Marking of Fill Area Under Multiple Curves	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>		Fine-tune the Display Range Support Kriging and IDW <i>I</i> for Stacked Matrices Interp
Curve Translate Gadget	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>		Interpolate Stacked Matrice
Profile Gadget	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>		over Region-of-Interest (including Shapefile-based
Surface Integration Gadget	PRO	PRO	PRO	PRO	PRO	PRO	Multi-select and Delete Ma
Global Vertical Cursor Gadget Across Graphs	<b>✓</b>	+	<b>✓</b>	<b>✓</b>	+	<b>✓</b>	from Stacked Matrices  Import Average of Yearly D
Intersect Gadget	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Specified Months from a N
Quick Sigmoidal Fit Gadget	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	Convert Image to Matrix fo
Cluster Gadget	PRO	PRO	+	PRO	+	PRO	Further Analysis and Graph
Differentiate Gadget	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	Tools for Converting Image  Data and Grayscale Histog
Interpolate Gadget	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	Finding Display
Quick Peaks Gadget	<b>√</b>	<b>√</b>	+	<b>√</b>	<b>√</b>	<b>√</b>	Range of Image
Digitizer	<b>√</b>	<b>√</b>	+	<b>✓</b>	<b>✓</b>	+	Subtract and Simple Math T Support Periodic Arithmetic
Quick Fit Gadget	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	on Stacked Matrices
Rise Time Gadget	PRO	PRO	PRO	PRO	PRO	PRO	Finding of Min and Max Coordinates for Region-of-I
Integrate Gadget	✓	✓	✓	<b>√</b>	<b>✓</b>	✓	Resample or Interpolation
FFT Gadget	✓	✓	✓	✓	✓	✓	of Stacked Matrices
Statistics Gadget	<b>√</b>	✓	✓	✓	✓	✓	Matrix Stats, Subtraction, S
RS AND GIS DATA HANDLING	2024*	2024	2023*	2022*	2021*	9.*	Math, Linear Fit Along Time
Support 4D NetCDF: Importing, Analysis and Process	<b>√</b>	✓	<b>✓</b>				Finding Mean, Min, Max e Region-of-Interest (including based) from Stacked Matric
Auto-Detect and Set Geo-Information for GeoTIFF During Export	✓	<b>✓</b>	<b>√</b>				Extract Region-of-Interest (in Shapefile-based) from Stac
NetCDF Import Supports Yearly Data NC4 Files	<b>✓</b>	<b>✓</b>	<b>✓</b>				Matrices
Support Importing Shapefiles in WGS84 Format	<b>✓</b>	<b>✓</b>	<b>✓</b>				Extract Pixel Values from Stacked Matrices by Point F or Specifying Coordinates
Interpolate Stacked Matrices by Given X/Y Coordinates	<b>✓</b>	<b>✓</b>	<b>√</b>				Export Data as NetCDF File
Import GeoTIFF Files as Images	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>			Shift or Flip a NetCDF File During Import
Import DEM Data from GeoTIFF Files as Stacked Matrices for Further Analysis	✓	<b>✓</b>	<b>√</b>	<b>✓</b>			Pick Out a Specific Time Pe from a NetCDF File During
Export Image or Matrix Data as GeoTIFF Images	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>			Calculate Average from a NetCDF File During Import

RS AND GIS DATA HANDLING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Extract the Region of Interest (including Shapefile-based) from Image	<b>✓</b>	✓	<b>√</b>	<b>✓</b>		
Apply Color Palettes to GeoTIFF	✓	✓	✓	✓		
Fine-tune the Display Range of Image	✓	✓	✓	✓		
Support Kriging and IDW Method for Stacked Matrices Interpolation	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		
Interpolate Stacked Matrices over Region-of-Interest (including Shapefile-based)	<b>✓</b>	✓	✓	✓		
Multi-select and Delete Matrices from Stacked Matrices	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>		
Import Average of Yearly Data in Specified Months from a NetCDF File	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>		
Convert Image to Matrix for Further Analysis and Graphing	<b>✓</b>	✓	✓	<b>✓</b>		
Tools for Converting Image to Column Data and Grayscale Histogram for Finding Display Range of Image	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>		
Subtract and Simple Math Tools Support Periodic Arithmetic Calculation on Stacked Matrices	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Finding of Min and Max Coordinates for Region-of-Interest	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>		
Resample or Interpolation of Stacked Matrices	<b>✓</b>	<b>√</b>	<b>✓</b>	+	<b>✓</b>	
Matrix Stats, Subtraction, Simple Math, Linear Fit Along Time Axis	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	
Finding Mean, Min, Max etc. on Region-of-Interest (including Shapefile- based) from Stacked Matrices	<b>✓</b>	✓	✓	+	✓	
Extract Region-of-Interest (including Shapefile-based) from Stacked Matrices	<b>✓</b>	✓	✓	✓	✓	
Extract Pixel Values from Stacked Matrices by Point Picking or Specifying Coordinates	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Export Data as NetCDF Files	<b>✓</b>	✓	<b>✓</b>	+	<b>√</b>	
Shift or Flip a NetCDF File During Import	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Pick Out a Specific Time Period from a NetCDF File During Import	<b>✓</b>	✓	✓	+	✓	
Calculate Average from a NetCDF File During Import	<b>✓</b>	✓	+	+	<b>✓</b>	





MATHEMATICS	2024*	2024	2023*	2022*	2021*	9.*
Interpolate/Extrapolate: Process Multiple Y from Same X, Generate Results with Specified Binning Values	<b>√</b>	<b>✓</b>				
Normalize Data by Group	✓	✓	✓			
Reduce XY Data by Group Defined In Other Columns	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Autofill for Column Formula When Ctrl+Drag Across Columns	✓	<b>✓</b>	<b>✓</b>			
Normalize Column(s) to a Specified Range or Use Statistics of Reference Column to Normalize Column	✓	✓	✓	✓		
Improve Handling of NANUM for Moving Functions	✓	✓	✓	✓	✓	
More Options for Average Multiple Curves with Different X Range	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Simple Curve Math Supports Custom Formula	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Show Polygon Area of Selected Contour Line in Data Display	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Akima Spline in Interpolation	✓	✓	✓	✓	✓	✓
2D Interpolation and Extrapolation	✓	✓	✓	✓	<b>√</b>	✓
Compute Polygon Area	✓	✓	✓	✓	✓	✓
Compute Surface Area and Matrix Area	PRO	PRO	PRO	PRO	PRO	PRO
2D Volume Integration	PRO	PRO	PRO	PRO	PRO	PRO
3D Interpolation	✓	✓	✓	✓	✓	PRO
Trace Interpolation on XY Data	PRO	PRO	PRO	PRO	PRO	PRO
1D Interpolation and Extrapolation	<b>√</b>	+	<b>√</b>	<b>√</b>	<b>√</b>	+
Interpolation and Extrapolation of Y From X	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	+
Trace Interpolation on XYZ Data	1	1	/	<b>√</b>	/	<b>√</b>
· p · · · · · · · · · · · · · · · · · ·	V	,	,			
Normalization Across Multiple Columns or Curves	<b>√</b>	√	<i>√</i>	+	√	<b>√</b>
Normalization Across	✓	√ ✓	√	+	✓ ✓	+
Normalization Across Multiple Columns or Curves Set Column or Matrix Values by Using		√ ✓ 2024	√ ✓ 2023*	+ ✓ 2022*	√ ✓ 2021*	+ 9.*
Normalization Across Multiple Columns or Curves Set Column or Matrix Values by Using Mathematics Operations	✓	,	√ ✓ 2023*	<b>√</b>	√ ✓ 2021*	
Normalization Across Multiple Columns or Curves  Set Column or Matrix Values by Using Mathematics Operations  CURVE FITTING  Support Named	2024*	2024	✓ ✓ 2023* ✓	<b>√</b>	✓ ✓ 2021*	
Normalization Across Multiple Columns or Curves  Set Column or Matrix Values by Using Mathematics Operations  CURVE FITTING  Support Named Range in Fitting Tools  Incorporate Python into	2024*	2024	✓ 2023* ✓ ✓	<b>√</b>	✓ 2021* ✓	

CURVE FITTING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
Support Defining Fitting Functions Using Python	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	
Include Standard Error on Derived Parameters in the Parameter Summary Table	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Support Integral in Implicit Function	✓	✓	✓	✓	✓	
< and > Two Buttons on Parameters Tab of Nonlinear Curve Fit Dialog to Switch Between Sets of Parameters to Compare Fitting Result	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Provide Selection of Parameter Initialization Formula when Defining Fitting Functions	✓	✓	✓	+	✓	
More Built-in Fitting Functions such as Photosynthesis Irradiance (PI) Curve, 3D Curves, Diode and Solar Cell Data ect.	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Provide Deming Method in Fit Linear with X Error	PRO	PRO	PRO	PRO	PRO	
Customize Parameter Table in Graph for LR/PR/NLFit and Peak Fitting	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Zoom on Preview tab of Nonlinear Curve Fit	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Improved Fitting Results: Add Normal Probability Plot of Residuals, Put Residual Plots in a Single Graph	<b>✓</b>	<b>√</b>	<b>√</b>	+	<b>√</b>	
Fit and Rank All Functions in a Category	PRO	PRO	PRO	PRO	PRO	PRO
Orthogonal Regression for Implicit/Explicit Functions	PRO	PRO	PRO	PRO	PRO	+
Calculate Standard Error for Derived Parameter	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Linear Fit with Support for X Error	PRO	PRO	PRO	PRO	PRO	+
Surface Fit with Multiple Peaks	PRO	PRO	PRO	PRO	PRO	PRO
New Fitting Function Builder for Fitting Function Creation	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Graphical Residual Analysis for Fitting	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
Find-X/Find-Y Tool for Linear, Polynomial, and Nonlinear Fit	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
New Find-Z Tool for Nonlinear Surface/Matrix Fit	PRO	PRO	PRO	PRO	PRO	PRO
Fitting Comparison	✓	<b>√</b>	✓	<b>√</b>	PRO	PRO





PEAK ANALYSIS	2024*	2024	2023*	2022*	2021*	9.*
Peak Analyzer: Support Modifying Number Of Points for Individual Peaks	<b>✓</b>	✓	✓	✓		
Support Python-based Fitting Functions in Peak Analyzer	<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>✓</b>	
Peak Analyzer: Support for Sorting in Output Sheet, Option to Use Data in X Axis Range, Custom Peak Filtering Using Script	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Peak Analyzer: Support Output Baseline Subtracted Peaks Information after Finding Peaks, Report Baseline Mode in Notes node, Add Hint Tab in Fit Control Dialog	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
New Method for Peak Detection: Fourier Self Deconvolution	<b>✓</b>	✓	✓	✓	<b>✓</b>	
Auto Bound Setting for Positive-Only and Negative-Only Peaks	<b>✓</b>	✓	<b>✓</b>	✓	<b>✓</b>	
Sequentially Initialize Parameter Values in Batch Peak Analysis	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	
Multiple Peak Fit Tool	✓	<b>√</b>	✓	<b>√</b>	<b>✓</b>	✓
Batch Peak Fitting	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	PRO
Peak Analyzer: Peak Fitting	PRO	PRO	PRO	PRO	+	PRO
Peak Analyzer: Fit Baseline with Peaks	PRO	PRO	PRO	PRO	PRO	PRO
Peak Analyzer: Peak Integration	✓	✓	✓	<b>√</b>		,
D					<b>√</b>	$\checkmark$
Peak Analyzer: Peak Finding	✓	✓	✓	<b>√</b>	✓ ✓	✓
Peak Analyzer: Peak Finding  Peak Analyzer: Baseline Detection	✓	✓	✓	✓		
,			·		<b>√</b>	✓
Peak Analyzer: Baseline Detection			·		<b>√</b>	✓
Peak Analyzer: Baseline Detection Peak Analyzer: Baseline Subtraction	✓	✓ ✓	✓	✓ ✓	✓ ✓	✓ ✓
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing	✓	✓ ✓	✓	✓ ✓	✓ ✓	✓ ✓
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing Support Span by X Values  Support Gaussian And Kaiser Window	√ √ 2024*	✓ ✓ 2024	√ ✓ 2023*	√ ✓ 2022*	✓ ✓	✓ ✓
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing Support Span by X Values  Support Gaussian And Kaiser Window Function For FFT And IFFT	✓ ✓ ✓ 2024* ✓ ✓	✓ ✓ 2024 ✓ ✓	√ √ 2023*	√ √ 2022*	√ √ √ 2021*	✓ ✓
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing Support Span by X Values  Support Gaussian And Kaiser Window Function For FFT And IFFT  Support Binomial Filter for Smoothing	✓ ✓ ✓ 2024* ✓ ✓ ✓	✓ ✓ ✓ 2024 ✓ ✓ ✓ ✓	✓ ✓ ✓ 2023*	✓ ✓ ✓ 2022*	✓ ✓ ✓ ✓ 2021*	✓ ✓
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing Support Span by X Values  Support Gaussian And Kaiser Window Function For FFT And IFFT  Support Binomial Filter for Smoothing  LOWESS and LOESS Smoothing	✓ ✓ ✓ 2024* ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ +	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ 2022* ✓ ✓	✓ ✓ ✓ ✓ 2021*	√ √ 9.*
Peak Analyzer: Baseline Detection  Peak Analyzer: Baseline Subtraction  SIGNAL PROCESSING  Smooth: Support Multiple XY as Input, LOWESS and LOESS Smoothing Support Span by X Values  Support Gaussian And Kaiser Window Function For FFT And IFFT  Support Binomial Filter for Smoothing  LOWESS and LOESS Smoothing  IIR Filter Design	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ PRO	√ 2024  √ 4  + PRO	✓ ✓ 2023*  ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ PRO	√	2021*  PRO	√

Signal Decimation to Reduce/Resample Data         \$200 </th <th>SIGNAL PROCESSING (CON'T)</th> <th>2024*</th> <th>2024</th> <th>2023*</th> <th>2022*</th> <th>2021*</th> <th>9.*</th>	SIGNAL PROCESSING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
2D FFT and 2D Inverse FFT		PRO	PRO	PRO	PRO	PRO	PRO
Short-Time Fourier Transform (STFT)  Wavelet Analysis  Fill Dert Transform  REO FRO FRO FRO FRO FRO FRO FRO FRO FRO FR	1D FFT, Inverse FFT and 1D FFT Filter	✓	✓	✓	✓	✓	✓
Wavelet Analysis  Filbert Transform  PRO	2D FFT and 2D Inverse FFT	PRO	PRO	PRO	PRO	PRO	PRO
Hilbert Transform	Short-Time Fourier Transform (STFT)	✓	✓	✓	✓	✓	PRO
STATISTICS  2024' 2024' 2022' 2022' 2021' 9.*  Statistics on Whole Sheet  Statistics On Columns: Options to Show Histogram as Count, Relative Frequency or Density, Nicer Result Graph and Worksheet  Footnote for Power Result in Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  FROO Pace A Statistics on Rows  Support Result Graph  FROO PROO PROO PROO PROO PROO PROO PROO	Wavelet Analysis	PRO	PRO	PRO	PRO	PRO	PRO
STATISTICS  Statistics on Whole Sheet  Statistics on Whole Sheet  Statistics On Columns: Options to Show Histogram as Count, Relative Frequency or Density, Nicer Result Graph and Worksheet  Footnote for Power Result in Two Sample T-Test  Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Means Plot in Two-Way ANOVA  Partial Correlation  Cross Tabulation  Statistics on Whole Sheet  V V V V V V V V V V V V V V V V V V V	Hilbert Transform	PRO	PRO	PRO	PRO	PRO	PRO
Statistics on Whole Sheet  Statistics On Columns: Options to Show Histogram as Count, Relative Frequency or Density, Nicer Result Graph and Worksheet  Footnote for Power Result in Two Sample T-Test  Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Means Plot in Two-Way ANOVA  Partial Correlation  Cross Tabulation  Statistics on Rows Plot in Two-Way ANOVA  Partial Correlation  Cross Tabulation	2D Correlation	PRO	PRO	PRO	PRO	PRO	PRO
Statistics On Columns: Options to Show Histogram as Count, Relative Frequency or Density, Nicer Result Graph and Worksheet  Footnote for Power Result in Two Sample T-Test  Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statisty X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Means Plot in Two-Way ANOVA  Partial Correlation  Cross Tabulation  RO R	STATISTICS	2024*	2024	2023*	2022*	2021*	9.*
Histogram as Count, Relative Frequency or Density, Nicer Result Graph and Worksheet  Footnote for Power Result in Two Sample T-Test  Two Sample T-test  Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  PRO	Statistics on Whole Sheet	✓	✓	✓			
Two Sample T-Test Two Sample T-test On Rows Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  PRO	Histogram as Count, Relative Frequency or Density, Nicer Result Graph and	<b>√</b>	✓	<b>√</b>			
Supports "Welch Test"  K-Means Cluster: Support Option to Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statissty X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  PRO PRO PRO PRO PRO PRO PRO		<b>√</b>	✓	<b>✓</b>			
Standardize Variables; Cluster Plot  ROC Curve: Display Optimal Cutpoint; Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  Cross Tabulation		<b>√</b>	✓	<b>√</b>	<b>√</b>		
Improved Result Graph  Statistics on Rows Support for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  PRO		<b>√</b>	✓	✓	✓		
for Multi-sheet Input  Provide Significance Letters Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  PRO		<b>√</b>	✓	<b>√</b>	<b>√</b>		
Output in ANOVA Tools  Mean Comparison Support for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  Partial Correlation  PRO		<b>√</b>	✓	✓	✓	<b>√</b>	
for Non-parametric Tools  Statsxy X-Function to Get Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  3-way ANOVA  Partial Correlation  PRO	_	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Statistics by Binning  Support Combine Multiple Dataset as a Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  3-way ANOVA  Partial Correlation  PRO		<b>✓</b>	✓	<b>√</b>	✓	<b>✓</b>	
Single One to Normalize  Support Grouping for Statistics on Rows  Support Means Plot in Two-Way ANOVA  3-way ANOVA  Partial Correlation  PRO		<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>✓</b>	
Statistics on Rows  Support Means Plot in Two-Way ANOVA  3-way ANOVA  Partial Correlation  Cross Tabulation  PRO		✓	✓	✓	✓	✓	
Two-Way ANOVA  3-way ANOVA  Partial Correlation  PRO	, , ,	✓	✓	✓	✓	<b>✓</b>	
Partial Correlation PRO	l	✓	✓	✓	✓	✓	
Cross Tabulation PRO PRO PRO PRO	3-way ANOVA	PRO	PRO	PRO	PRO	PRO	
	Partial Correlation	PRO	PRO	PRO	PRO	PRO	
Distribution Fit PRO PRO PRO PRO	Cross Tabulation	PRO	PRO	PRO	PRO	PRO	
	Distribution Fit	PRO	PRO	PRO	PRO	PRO	





STATISTICS (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
t-Tests on Rows	✓	✓	✓	✓	PRO	
One/Two-Proportion Testing	PRO	PRO	+	PRO	PRO	PRO
More Power & Sample Size Tests (One/Two-Proportion, One/Two Variance)	PRO	PRO	PRO	PRO	PRO	PRO
Grubbs Test and Q-test to Detect Outliers	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	✓	+
Multivariate Analysis: Cluster, Principal Component, Discriminant, , Partial Least Squares Regression etc.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	PRO	PRO
ROC Curve	✓	<b>√</b>	✓	<b>√</b>	PRO	PRO
Survival Analysis: Kaplan-Meier, Cox Proportional Hazard ,Log-Rank, etc.	PRO	PRO	PRO	PRO	PRO	+
Nonparametric Tests: Mann-Whitney Test, etc.	PRO	PRO	+	PRO	PRO	PRO
Power and Sample Size	PRO	PRO	PRO	PRO	PRO	+
One- and Two-Way Repeated Measures ANOVA	PRO	PRO	+	PRO	PRO	PRO
Hypothesis Testing	PRO	PRO	+	<b>√</b>	✓	+
Correlation Coefficient	PRO	PRO	PRO	PRO	PRO	PRO
Normality Test	<b>√</b>	<b>√</b>	<b>√</b>	✓	✓	✓
Basic Descriptive Statistics, 1D and 2D Frequency Count, Discrete Frequencies, One/Two-Way ANOVA	<b>√</b>	<b>√</b>	+	<b>√</b>	✓	✓
CONNECTIVITY WITH OTHER APPLICATIONS	2024*	2024	2023*	2022*	2021*	9.*
Preshipped VI Files Adding "Close References" Application Control	<b>✓</b>	✓	✓	✓		
Allow MATLAB Console to Connect to Already Running Instance of MATLAB	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Communicate with Individual Mathematica V8 or Later	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
R Console and support for Rserve to exchange data between Origin and R	<b>√</b>	✓	<b>√</b>	✓	✓	
MATLAB Console with GUI Support to Transfer Data Between Origin and MATLAB	✓	✓	✓	✓	✓	✓
LabVIEW Connectivity	<b>✓</b>	✓	✓	+	✓	<b>✓</b>
Automation Server Support	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>

PROGRAMMING	2024*	2024	2023*	2022*	2021*	9.*
New Labtalk Functions: Landau Distribution, ERFI, Catrows	<b>√</b>					
Python: Provide OriginExt for each Python version	<b>✓</b>					
Labtalk: Load Theme from Theme File	<b>√</b>	<b>√</b>				
Python: Note Window Access	<b>√</b>	<b>√</b>				
OC: Print Note Window	<b>√</b>	<b>√</b>				
New Labtalk Functions: RMSE, MBE, MAE, Countif	<b>√</b>	<b>√</b>	<b>√</b>			
Labtalk: Set display format of column label row, Set Colormap Transparency, Time functions support elapsed time period, Split RGB value, Delete hidden/selected rows in worksheet, Reorder columns in worksheet, Remove all escape code from Text objects, Database Import, Improved Relative Positioning of Linked Objects, Function to Generate a Range Variable for Cell Formula, Add Button to Worksheet Gap Area	<b>√</b>	<b>√</b>	<b>√</b>			
Upgrade Embedded Python to be 3.11	<b>√</b>	<b>√</b>	<b>✓</b>			
OC: Multiple ROI intensity profiles for image window, Set Multi-layer set Column Width for linked layers with X straight 1:1	<b>√</b>	<b>√</b>	<b>√</b>			
Improved Script Window: Unicode Support, Auto Complete, Syntax Color, Font Control	<b>✓</b>	<b>√</b>	<b>✓</b>			
Python: Python Interface for LabTalk Set Command for Plot	<b>√</b>	<b>√</b>	<b>✓</b>			
LabTalk: Access Cell Notes, Layer Object Support Change XY Mapping for Matrix, Copy Graph Window, Save Workbook; Access on ROI Object; Wipe All Formula and Script etc.	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>		
Python: Evaluate FDF, pip Command Support for Checking of Package Version, Copy Graph Page, Data Connector Class for Controlling Settings; Methods to Set Parameter Value During Fitting etc.	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		





10	5/	total	11		
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PROGRAMMING (CON'T)	2024*	2024	2023*	2022*	2021*	9.* PROGRAMMING (CON'T)
OC: Convert String Array to Matrix, Get Data Range from Name, Get List of Cells with Notes to Worksheet Class,	<b>√</b>	<b>√</b>	\	./		New X-Function to Split Cell Text to Columns like Excel
Image Handling; Load Template as Minimized etc.	V	•	V	•		LabTalk Option to Generate Gadget Output for All Curves, All Layers, etc.
Support Links in GetN Dialog	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		Control Polygon or Polyline Object thru LabTalk
Python Packages Manager	✓	<b>√</b>	✓	✓	<b>√</b>	Multi-sheet Range Support
Supports Proxy Setting  Support Intellisense	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Provide Python Package OriginExt to Access Origin Functionality from External Python through COM
in Python Console  Support Python in Setting						Provides LabTalk Functions for Linear Fit
Column Values, Defining Fitting Funciton, Import Filter, Python Script in Buttons etc.	✓	✓	✓	✓	✓	Origin API for calling Origin from Outside Python
New OriginPro Package for Easy Access to Origin from Python	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Unicode (UTF-8 Encoded) Text String Support in LabTalk and OriginC
Access Python Functions	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Graph Object Properties Access From LabTalk
from LabTalk and Origin C	<b>V</b>	V	<b>V</b>	V	<b>V</b>	Support for HTML Dialog with Java Script
Support Python File Debug in Code Builder	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	Distribution Fit
Added OrglabExt for better COM connection to Origin	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Integrate Python as a Scripting Language in Origin
from external Python						Ability to Encrypt OC code
New LabTalk Controls: Update Pending Locks, Access to Dash Definition, Control of Box Plots, Sort Columns by Long Name, Control	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Code Builder has New Editor Based Scintilla Code, which Supports Code Folding, etc.
Plot Label Using Index						Origin C Access to Full NAG Mark 25 Library
Preshipped Python 3.8	+	+	+	✓	✓	Generate LabTalk Script Command from Current Dialog Box Settings
New Lookup & Reference Functions for Categorical Data	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	X-Function: Easy Creation of
New LabTalk Functions: Get or Set						Custom Tools with Automatic GUI by X-Function
Column as Categorical or use Sample Interval, Join Arbitrary Ranges into Single Dataset, Calculate Standard	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	X-Function: Execute X-Function from LabTalk Script and Menu
Error of Dataset, Get Plot Type Info, open Edit Range Dialog						Command Window: Auto-Complete Support for Scripting
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PROGRAMMING (CON'T)	2024*	2024	2023*	2022*	2021*	9.*
New X-Function to Split Cell Text to Columns like Excel		✓	<b>√</b>	<b>√</b>	<b>√</b>	
LabTalk Option to Generate Gadget Output for All Curves, All Layers, etc.		<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	
Control Polygon or Polyline Object thru LabTalk		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Multi-sheet Range Support		<b>√</b>	<b>✓</b>	<b>√</b>	✓	
Provide Python Package OriginExt to Access Origin Functionality from External Python through COM		<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Provides LabTalk Functions for Linear Fit		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Origin API for calling Origin from Outside Python		<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	
Unicode (UTF-8 Encoded) Text Strings Support in LabTalk and OriginC	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Graph Object Properties Access From LabTalk	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	
Support for HTML Dialog with Java Script	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Distribution Fit		<b>√</b>	<b>√</b>	<b>√</b>	✓	
Integrate Python as a Scripting Language in Origin		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Ability to Encrypt OC code		<b>√</b>	<b>√</b>	<b>√</b>	✓	
Code Builder has New Editor Based on Scintilla Code, which Supports Code Folding, etc.		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	✓
Origin C Access to Full NAG Mark 25 Library	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Generate LabTalk Script Command from Current Dialog Box Settings		<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
X-Function: Easy Creation of Custom Tools with Automatic GUI by X-Function	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>
X-Function: Execute X-Function from LabTalk Script and Menu		✓	<b>√</b>	<b>√</b>	<b>√</b>	✓
Command Window: Auto-Complete Support for Scripting		<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>



