



中国科学技术大学
University of Science and Technology of China



Scientific Graphing and Data Analysis Using Origin

Xuejuan Zhang

目录

Contents



Brief Introduction



Scientific Graphing



Data Analysis



Learning Resources

Brief Introduction



- ◆ A powerful **data analysis** and **publication-quality graphing** software, developed by OriginLab Corp.
- ◆ Key Features: (1) Easy-to-use graphical interface. (2) Using built-in or user-defined “**Templates**”, one can easily customize and automate data import, analysis, graphing and reporting tasks. (3) Batch plotting and analysis operations are also supported.
- ◆ Latest Version: Origin(Pro) 2021
- ◆ Official Website: <http://www.originlab.com/>

Origin and OriginPro



中国科学技术大学
University of Science and Technology of China

Curve Fitting

Curve Fitting		Origin	OriginPro
Linear and Polynomial Fitting	Linear Regression	✓	✓
	Linear Fit with X Error		✓
	Confidence Ellipse for Linear Fit	✓	✓
	Polynomial Regression	✓	✓
	Multiple Linear Regression	✓	✓
	Partial Leverage Plots in Multiple Regression	✓	✓
	Residual Analysis	✓	✓

For undergraduate and graduate students
(Post-docs or other academic staff not eligible)

Licensing Option*:

Node-locked (fixed-seat, computer-specific)

*Must be on a student-owned computer, not a University-owned computer

Peak Analysis

Peak Analysis		Origin	OriginPro
Peak Analysis	Batch Peak Analysis	✓	✓
	Baseline Detection	✓	✓
	Baseline Subtraction	✓	✓
	Peak Finding	✓	✓
	Peak Integration	✓	✓
	Peak Fitting		✓
	Fit Baseline with Peaks		✓
	Fit Individual Peaks with Different Fitting Functions		✓

Learning Edition

Free

- License Term : 6-month
- Window Limit* : 12
- Eligible for latest version within license term
- Valid **University email** required during registration

Request Learning Edition

<https://www.originlab.com/Origin>



■ 产品列表

Windows Office **ORIGIN** MATLAB 高斯 Mathematica 福昕PDF NOD32

产品名称

工具或使用说明

· [OriginPro 2020](#)

[使用说明](#) [培训材料](#)

· [OriginPro 2019](#)

[使用说明](#) [培训材料](#)

· [OriginPro 2018b](#)

[使用说明](#) [培训材料](#)

· [OriginPro 2018](#)

[使用说明](#) [培训材料](#)

· [OriginPro 2017](#)

[使用说明](#) [培训材料](#)

· [OriginPro 2018](#)

[使用说明](#) [培训材料](#)

· origin软件授权及相关问题请联系吴老师 (63603498)

· 修改界面语言请在使用Help菜单里面的Change Language...选项

· 如有我校老师教学中需要Origin公司协助准备教程等, 可以联系李会民老师 (63600316,hmli@ustc.edu.cn)

■ 工具和文档

· [自动更新服务](#)

· [软件安装说明](#)

· [Kms激活说明](#)

· [应对windows和office 非标准安装不能认证处理脚本](#)

· [ISO to USB --U盘制作工具](#)

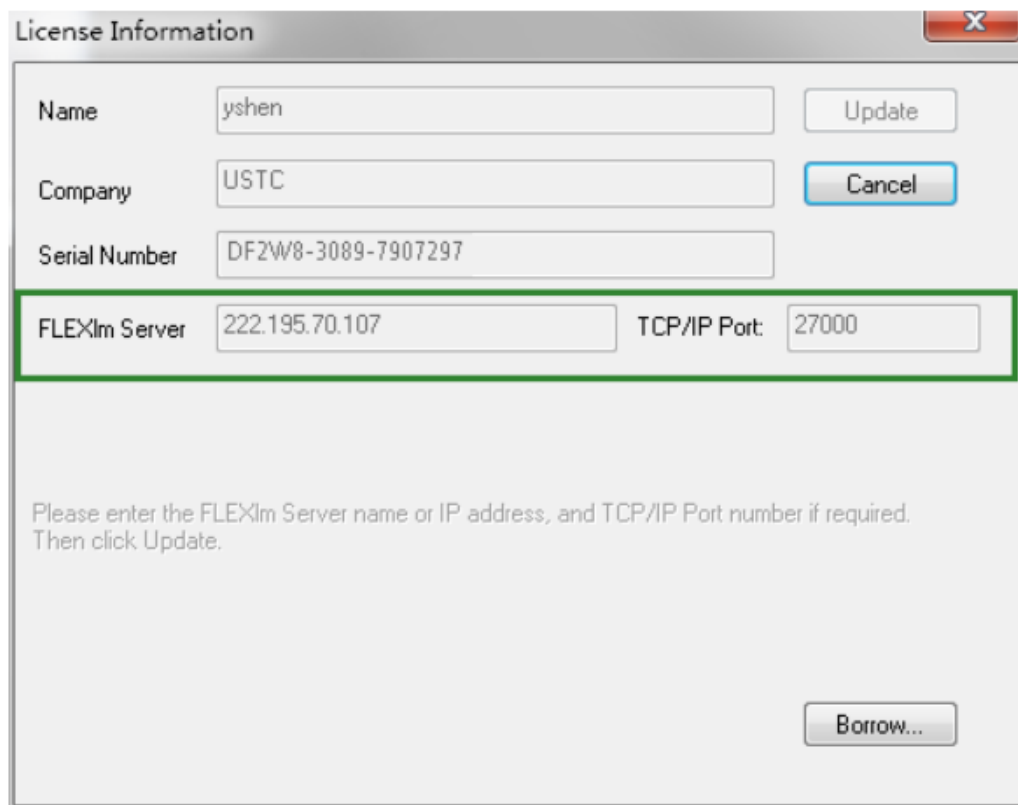
· [Rufus --U盘制作工具](#)

· [UltraISO使用方法](#)

■ OriginPro 使用说明

校内在线使用：如果能够直接连接到校园网，可以直接从激活服务器得到授权使用。

1. 使用序列号(Serial number: DF2W8-3089-7907297)安装OriginPro;
2. 打开菜单中的Help>Active License..., 将激活服务器ip: 222.195.70.107和端口27000填入FLEXlm Server和TCP/IP Port中, 点击Update, 连接成功后即可使用。



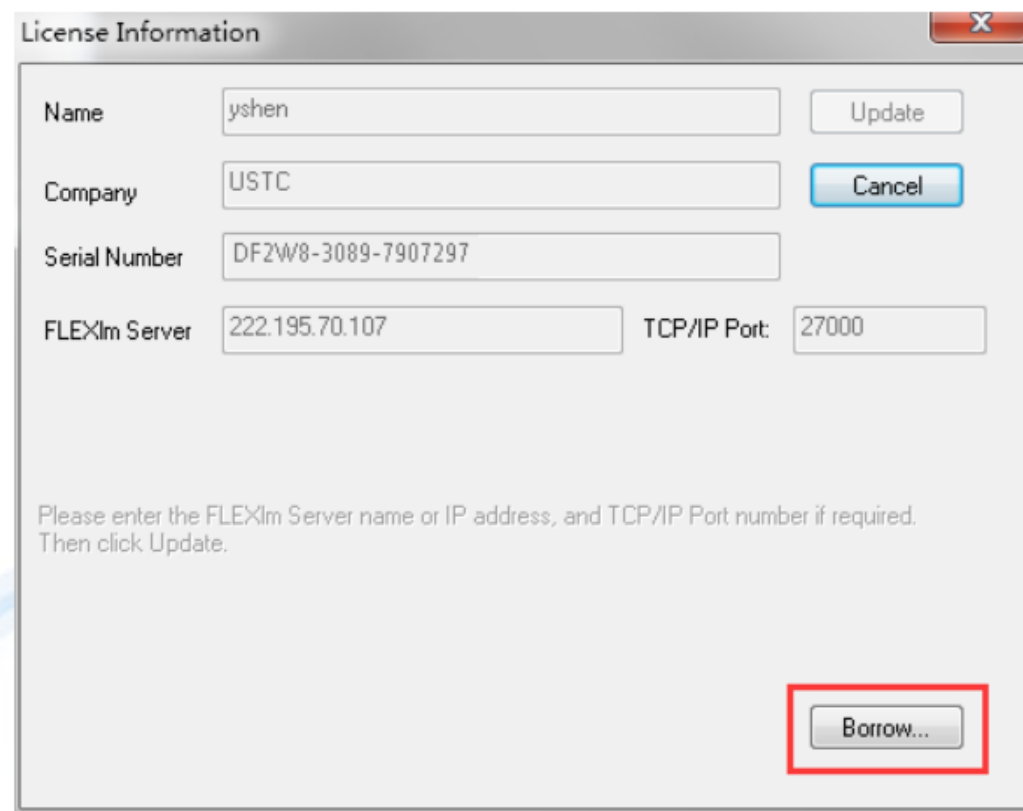
The dialog box titled "License Information" contains the following fields and buttons:

- Name: yshen (with an Update button)
- Company: USTC (with a Cancel button)
- Serial Number: DF2W8-3089-7907297
- FLEXlm Server: 222.195.70.107
- TCP/IP Port: 27000
- Instructions: Please enter the FLEXlm Server name or IP address, and TCP/IP Port number if required. Then click Update.
- Borrow... button (disabled)

The FLEXlm Server and TCP/IP Port fields are highlighted with a green border.

离线暂借授权：如果需要离线使用（例如在校外使用）一段时间，需要提前在能够连接到校园网时从激活服务器借出授权以供离线时使用。

打开菜单中的Help>Active License..., 点击Borrow..., 在出现的License Borrowing菜单中, 设定获取授权的时间（最大89天），点击Request Now, 即可获得申请时间的离线使用授权。



The dialog box titled "License Information" contains the following fields and buttons:

- Name: yshen (with an Update button)
- Company: USTC (with a Cancel button)
- Serial Number: DF2W8-3089-7907297
- FLEXlm Server: 222.195.70.107
- TCP/IP Port: 27000
- Instructions: Please enter the FLEXlm Server name or IP address, and TCP/IP Port number if required. Then click Update.
- Borrow... button (highlighted with a red border)

Interface and Windows



中国科学技术大学
University of Science and Technology of China

The screenshot shows the OriginPro 2019 (Academic) 64-bit interface. The title bar indicates the file path: D:\工作内容\文检课\2017秋季\OriginPro 2018\OriginPro 2018 Basic.opju * - /2 Creating Multi-Layer Graphs/04 Inset Graph/. The interface includes a Main Menu (File, Edit, View, Tools, Format, Window, Help), a toolbar, a Project Explorer (left), an Object Manager (right), an Apps panel (bottom right), and a central Workspace. The Project Explorer shows a tree structure with folders like '0 Overview', '1 Importing Data', '2 Creating Multi-Layer Graphs', '3 Exporting', and '4 Creating 3D Graphs'. The Object Manager shows a hierarchy with 'Graph10' containing 'Layer1' and 'Absorbance'. The Apps panel lists various tools like 'Add Apps', 'Send Graphs...', 'Graph Maker', 'Rank Models', 'Sequential Fit', and 'Simple Fit'. The Workspace contains a 'Book15' window with a table of data and a 'Graph10' window showing an absorbance spectrum. A 'Notes19' window is also open, displaying instructions for plotting and adding an inset graph.

Main Menu

Toolbars

Project Explorer

Object Manager

Workspace

Apps

Start Menu

Windows: Workbook, Graph, Matrix, Notes, Layout, etc.

Long Name	Frequency	Absorbance
Units	1/CM	arb. unit
Comments		
F(x)=		
1	450	0.0184
2	454	0.03443
3	458	0.02892
4	462	0.02985
5	466	0.03112
6	470	0.02258
7	474	0.0157
8	478	0.01217
9	482	0.0141

Notes19

```
1 Plot - Zoom
2 Line Plot
  Add Inset Graph with Data, Set X
  range: 600-900
3 Line Plot
  Scale in + Ctrl, draw a rectangle in
  Graph,
```


App Center

New and Popular

Search


Updates 2

Request App

Submit App

New

Popular




Tangent

OriginLab

Min. Version: Origin 2016 SR0

Downloads(90 days): 27531

★★★★★ (86)




Send Graphs to Word

OriginLab

Min. Version: Origin 2018b SR0

Downloads(90 days): 14776

★★★★★ (18)




Send Graphs to PowerPoint

OriginLab

Min. Version: Origin 2018b SR0

Downloads(90 days): 12323

★★★★★ (11)




Paired Comparison Plot

OriginLab

Min. Version: Origin 2020 SR0

Downloads(90 days): 10703

★★★★★ (18)



Principal Component Analysis for...

OriginLab

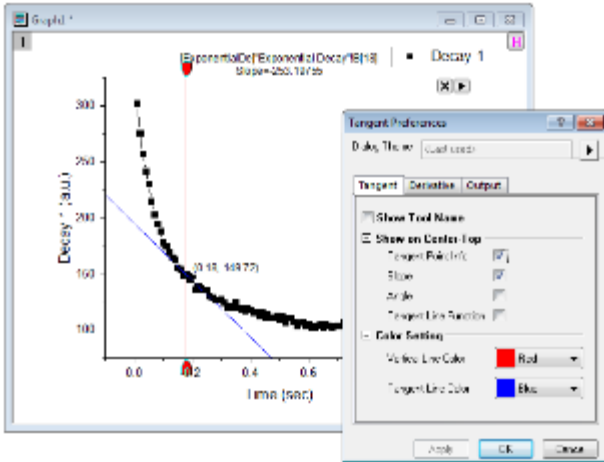
Min. Version: OriginPro 2017 SR0

Downloads(90 days): 8426

★★★★★ (6)

Tangent

App Version:1.5



Draw a tangent line at selected point of a data plot.

Download

✓

Download

Download

Start Menu (F1)



Start Menu (F1)

- ◆ Search for relevant Menu entries, Apps, FAQs, Videos, and else by Keywords
- ◆ Click the red Origin icon or press F1 to open it.



Samples

- Batch Processing - Import Multiple Files to Sequential Worksheet for Batch Processing
- Batch Processing - Clone Import.opju
- Data Exploration - Data Highlighter.opju
- Data Exploration - Data Reader - Automobile Comparison.opju
- Data Exploration - Data Cursors - Differences between Spectra.opju
- Data Exploration - Data Point Tooltip and Data Reader - Alkanes.opju
- Data Exploration - Data Cluster (Pro Only).opju
- Data Processing - Data Filter.opju
- Data Processing - Stack and Unstack.opju
- Data Exploration - Data Reader in Box Chart.opju

Menus

- File->Recent Imports->(None)
- File->Re-Import Directly (Ctrl+4)
- File->Import->EarthProbe (EPA)...
- File->Import->Import Wizard... (Ctrl+3)
- File->Import->Single ASCII...
- File->Import->Multiple ASCII...
- File->Import->Matlab (Mat)...

Shortcut Menus

- Workspace gray area->File->Recent Imports->(None)
- Worksheet top left corner without selection->Re-Import Directly
- Worksheet top left corner without selection->Import ASCII... (Ctrl+K)

Apps

- Agilent MS Reader
- Import PLEXON's PLX
- Import NMR Data
- HDF5 Browser
- Bruker BES3T files import
- Import Tektronix WFM Files
- Import Shapefile
- XML Connector
- Import VAMAS Data
- Import Gamry Voltammetry Files

Help

Post-Processing of **Imported Data**
after **data import** is complete. This feature allows you to perform Post-Processing of **Imported Data** ImpWiz

Accessing Metadata Associated with **Imported Files**
Import-Access-Metadata Metadata are **data** that in some way identified by you prior to file **import**. When **importing data** via

The **Import Wizard**
to **Import** Clipboard **Data** Post-Processing of **Imported Data** **Importing** Simple Binary File

Import Filter Manager
Import Filter Manager Intro-**ImportFilter**
a graph after **importing a data** file. Special **Import** Setting

Import Wizard Basics
. **Import data** files using the File: **Import: Import Wizard** menu command. Drag-and-drop

Importing Time Series Data with the Import Wizard
. When you **import** time series **data** files with the **Import Wizard**, you **Importing Time Series Data** with the **Import Wizard**

Using the **Import Wizard** to **Import Clipboard Data**
Using the **Import Wizard** to **Import Clipboard Data**
an **import filter** for **importing** similar **data** in the future. Please note

Import Wizard, The Source Page
Data are **imported** into the active window when **Import Mode**
The **Import** Mode drop-down control determines where **imported data**

Import Wizard Pages by Data Type
Page **Import Wizard**, The **Data** Selection Page (ASCII/Binary)

Import Wizard Pages by Data Type ImpWiz
Importing Simple Binary Files with the **Import Wizard**
on the Header Bytes page of the **Import Wizard**. The **data**
Importing Simple Binary Files with the **Import Wizard**

Videos

- Overview of Data Importing in Origin
- Clone Folder Import App
- Script After Import
- Excel Imports in Origin 2016
- Importing and Connecting with MATLAB
- Importing Data Part 1**

Imp Learn how to import ASCII file, customize your Import ASCII dialog settings and save them for Imp future reuse, and use the Import Wizard to import data file and customize the import settings.

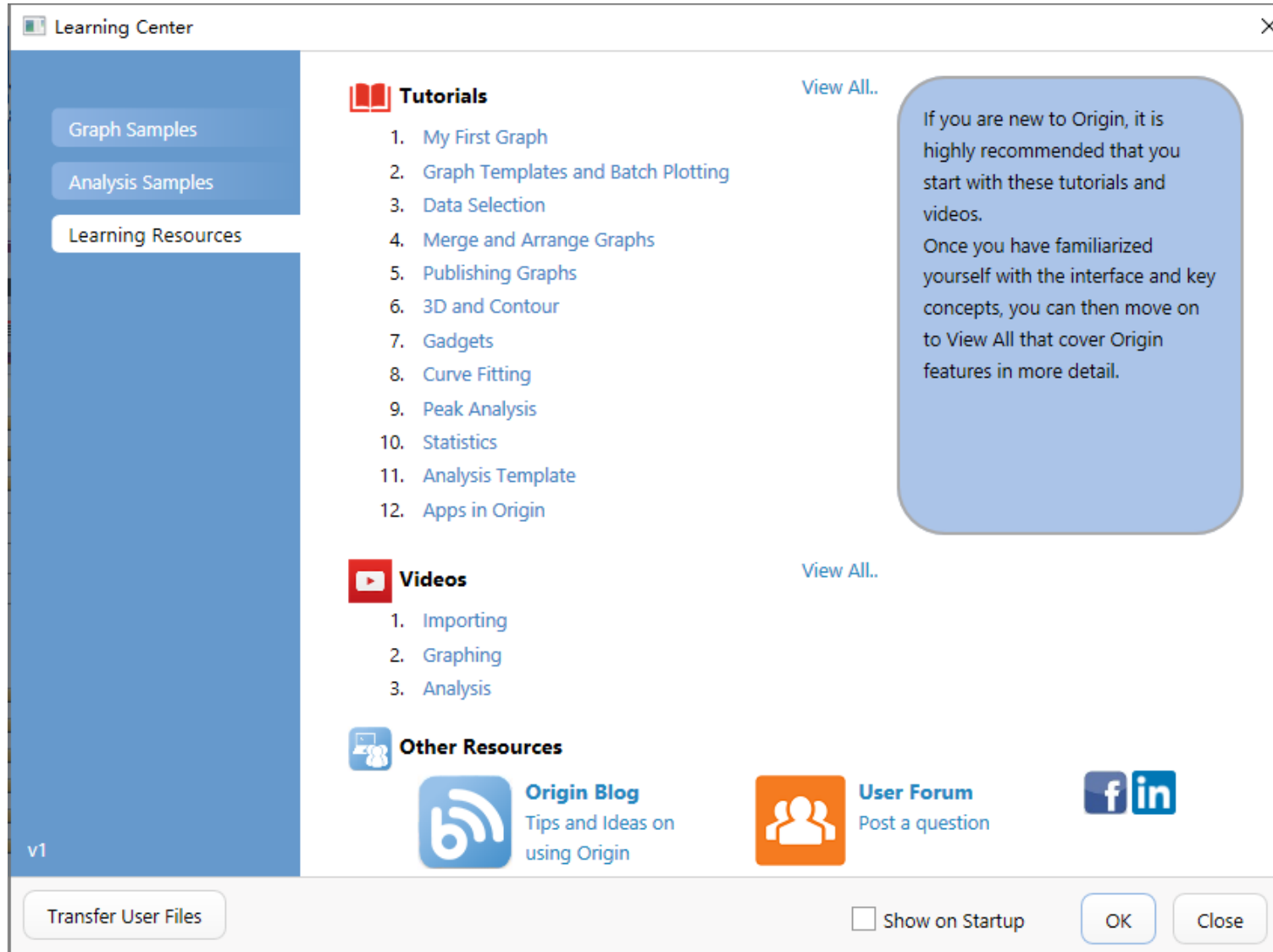
Batch Processing of Peak Data using Theme

Import Data from a Database

X-Functions

Find

data import



Quick access to examples & resources

- ◆ Graph Samples & Analysis Samples
- ◆ Learning Resources (tutorials, videos, blog, etc.)
- ◆ Transfer User Files

Menu: Help-Learning Center or press F11

Scientific Graphing



Scientific Graphing:

Graphic Requirements for Academic Journals



Bitmap image

The information of the image is stored in a grid of pixels.

Photographs, optical microscopy, and SEM, TEM, and AFM images.

File formats: TIFF, PNG, JPG, BMP, et al.



Example of bitmap image at original size and enlarged 300%

Vector graphics image

The information of the image is stored as a set of geometrical primitives, including points, lines, curves, and polygons.

Plots, graphs, chemical structures and reaction schemes, diagrams, and schematics.

File formats: EPS, PDF, PS, WMF, et al.



Example of vector graphics image at original size and enlarged 300%

ADVANCED MATERIALS

[HOME](#)[ABOUT](#) ▾[CONTRIBUTE](#) ▾[BROWSE](#) ▾[SPECIAL FEATURES](#) ▾[Guide for Authors](#)[Editorial Policies](#)[Article Types](#)[Graphics](#)[Copyright Permissions](#)[Additional Services](#)[Additional Resources](#)

Quick Navigation

- Documents
- Manuscript Submission
 - Confirmation of Receipt/Assessment
 - Data for Production
- Manuscript Preparation
 - General
 - Title Page
 - Table of Contents
 - References
 - Tables, Figures and Schemes
 - Supporting Information
 - Acknowledgements
 - Conflict of Interest

Quick Navigation

- Types of Images
- Bitmap Images
- Vector Graphic Images
- Submitting Images

[Submit an Article](#)[Browse free sample issue](#)[Get content alerts](#)[Subscribe to this journal](#)

Advertisement



Atomic Spectroscopy
Isotope ICP-QQQ
App Note

Download Free
Resources Application
Note

《ADVANCED MATERIALS》

◆ **Acceptable Formats:** TIFF, EPS, DOCX, PDF, WMF, XLSX, PPTX, JPG, PNG, et al.

◆ **File Type:**

Bitmap images (e.g. photographs, electron microscope images) should be submitted as **TIFF** or **PNG** files.

Vector graphics images (e.g. plots, line diagrams) should either be embedded into a Microsoft **Word** document or saved as a **PDF**, **PS**, or **EPS** file. If it can only be saved as a bitmap file, then it will need to be an extremely high-resolution (at least 1200 dpi) TIFF file.

◆ **Image Size:**

Bitmap images: one-column images (300 dpi x 3.35 in), two-column images (300 dpi x 7.01 in).

Vector graphics images saved as bitmap images: one-column images (1200 dpi x 3.35 in), two-column images (1200 dpi x 7.01 in).

◆ **Other Settings:** line width, plot symbol size, font size, etc.

Scientific Graphing:

Basic Graphing - Data Importing



Workbook



Workbook name

Column
Short Name

Plot Designation (X,
Y, Z, Er, Label, etc.)

Column
Label Rows
(optional)

Book19 - automobile1992-1999.dat *

	A(X)	B(Y)	C(Y)	D(Y)	E(Y)	F(Y)	G(Y)
Long Name	Year	Make	Power	0~60 mph	Weight	Gas Mileage	Engine Displacement
Units			kw	sec	kg	mpg	cc
Comments							
F(x)=				A+B			
Sparklines							
Filter	Less than 2000						
23	1992	Buick	122	12	1952	12	6556
24	1992	GMC	128	13	2005	13	6556
25	1992	Lincoln	95	10	2106	14	4949.8
26	1992	Toyota	102	11	1759	13	4949.8
27	1993	Mercedes	112	16	1714	15	5752.9
28	1993	Honda	100			15	4949.8
29	1993	Lincoln	108			15	5752.9
30	1993	Saturn	110	13	1668	14	5736.5
31	1993	Buick	106	12	1774	14	5736.5
32	1993	Kia	128	16	1655	15	6556
33	1993	Mazda	165	17	1347	15	7457.4
34	1993	Isuzu	161	10	1597	14	7441
35	1993	Nissan	113	14	2152	14	5736.5
36	1993	Honda	110	15	1625	15	5212

automobile Sheet1 Sheet2

Data Rows

Sheet Name

Matrix Book



MBook1 :1/1 *

	-10	-9.3548387	-8.7096774	-8.0645161	-7.4193548	-6.7741935	-6.1290322	-5.4838709	-4.8387096	-4.19354	-3.5483870
-1	-1.68054	-1.83903	-1.5965	-1.05045	-0.4204	0.8113	0.14667	-0.14427	-0.71549	-1.33734	-1.75986
-0.645	-1.4404	-1.59888	-1.35635	-0.81031	-0.1895	0.28681	0.08587	-0.47534	-1.0972	-1.51972	
-0.290	-1.12533	-1.28382	-1.04129	-0.49524	0.19819	0.53316	0.02998	-0.78213	-1.20466		
0.0645	-0.7746	-0.93308	-0.69056	-0.14451	0.49016	1.6028	0.40813	-0.4314	-0.85392		
0.4193	-0.4319	-0.59038	-0.34786	0.19819	0.69502	1.9046	0.50035	-0.0887	-0.51122		
0.7741	-0.13993	-0.29842	-0.05589	0.49016	0.78724	1.82512	0.68501	0.20327	-0.21925		
1.1290	0.06493	-0.09356	0.14897	0.69502	1.4173	1.80042	0.93331	0.40813	-0.0144		
1.4838	0.15715	-0.00133	0.2412	0.78724	1.87808	1.98437	0.93331	0.50035	0.07783		
1.8387	0.12525	-0.03323	0.2093	0.75534	1.3854	1.84618	0.66152	0.46845	0.04593		
2.1935	-0.0268	-0.18528	0.05725	0.60329	1.23335	1.69413	1.50947	0.93826	0.3164	-0.10612	
2.5483	-0.28005	-0.43853	-0.19601	0.35004	0.98009	1.44088	1.25622	0.68501	0.06315	-0.35937	
2.9032	-0.60296	-0.76144	-0.51891	0.02998	0.58099	1.54716	0.93331	0.3621	-0.25976	-0.68228	
3.2580	-0.95528	-1.11376	-0.87124	-0.32004	0.24314	1.6	0.58099	0.00978	-0.61208	-1.0346	
3.6129	-1.29313	-1.45161	-1.20908	-0.66004	-0.03813	1.9	0.24314	-0.32807	-0.94993	-1.37245	
3.9677	-1.5744	-1.73288	-1.49035	-0.94004	-0.60934	2.2	-0.03813	-0.60934	-1.2312	-1.65372	
4.3225	-1.76405	-1.92254	-1.68001	-1.13396	-0.50391	2.5	-0.60934	-0.799	-1.42086	-1.84338	
4.6774	-1.83846	-1.99694	-1.75442	-1.20837	-0.57832	2.8	-0.50391	-0.8734	-1.49526	-1.91778	
5.0322	-1.78835	-1.94683	-1.7043	-1.15826	-0.5282	3.1	-0.57832	-0.82329	-1.44515	-1.86767	
5.3870	-1.61996	-1.77844	-1.53592	-0.98987	-0.35982	3.4	-0.5282	-0.6549	-1.27676	-1.69928	
5.7419	-1.35428	-1.51276	-1.27023	-0.72419	-0.09414	3.7	-0.35982	-0.38922	-1.01108	-1.4336	
6.0967	-1.0244	-1.18289	-0.94036	-0.39432	0.23574	4.0	-0.09414	-0.05935	-0.68121	-1.10373	
6.4516	-0.67144	-0.82992	-0.58739	-0.04135	0.5887	4.3	0.23574	0.86483	-0.32824	-0.75076	
6.8064	-0.33936	-0.49784	-0.25532	0.29073	0.92078	4.6	0.5887	0.6257	0.00384	-0.41868	
7.1612	-0.06954	-0.22803	0.0145	0.56055	1.1906	4.9	0.92078	0.89552	0.27366	-0.14886	
7.5161	0.1044	-0.05409	0.18844	0.73449	1.36454	5.2	1.1906	1.06945	0.44759	0.02507	
7.8709	0.16078	0.0023	0.24483	0.79087	1.42093	5.5	1.36454	1.12584	0.50398	0.08146	
8.2258	0.09259	-0.06589	0.17664	0.72268	1.35274	5.8	1.42093	1.62886	0.43579	0.01327	
8.5806	-0.09168	-0.25016	-0.00763	0.53841	1.16847	6.1	1.35274	1.44459	0.25152	-0.171	

Sheet1

Columns mapped to linearly spaced X values

Matrix Window Menu

Rows mapped to linearly spaced Y values

Z Values

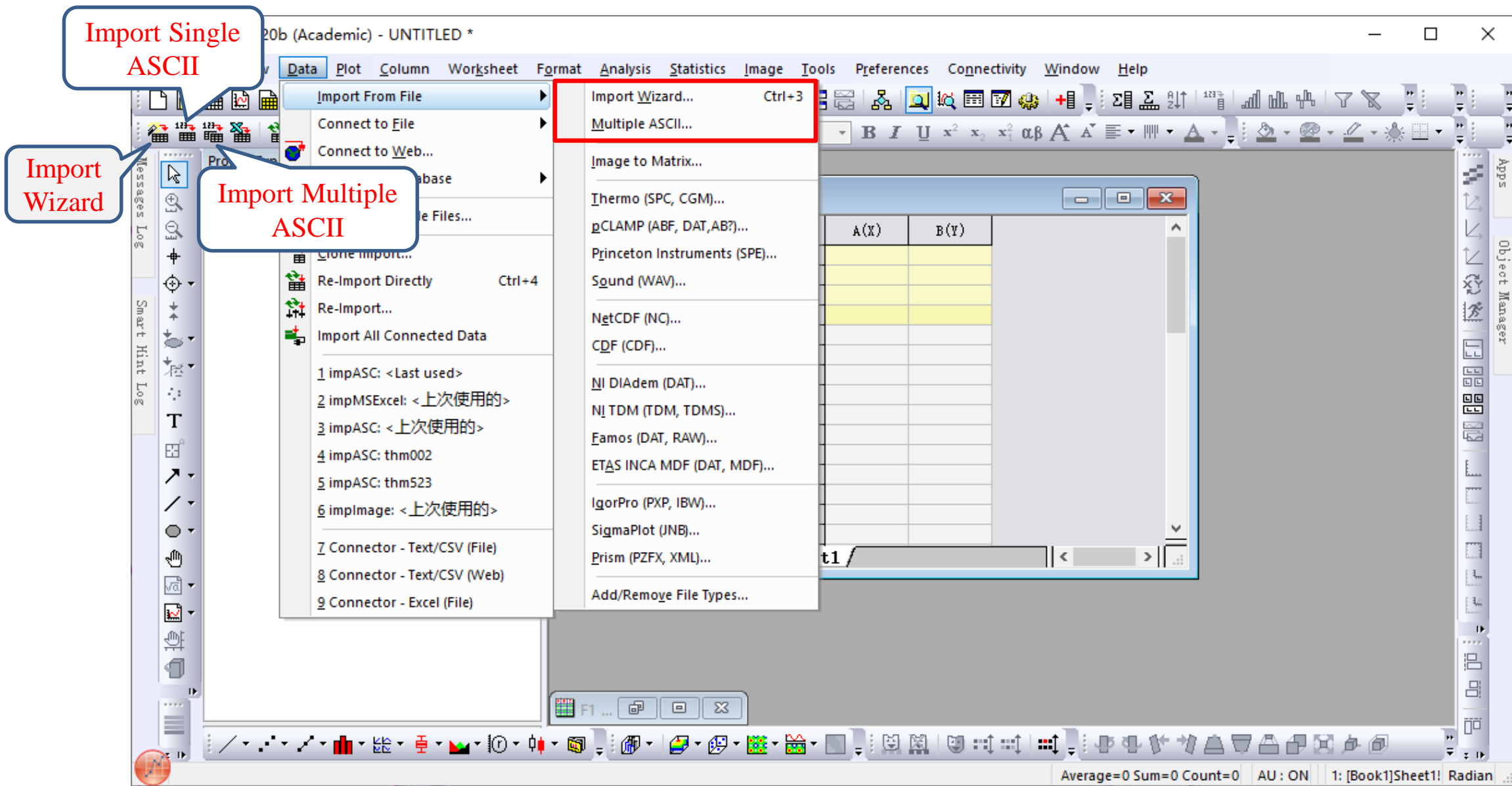
- ① **ASCII Files**: ASCII files are generic format files that can be read or produced by most applications. There are three common ASCII data formats: .DAT, .CSV, and .TXT. Delimiters such as Spaces, tabs, or commas are used to control the separation between cell entries in a file.
- ② **Binary Files**: A binary file is a file stored in binary format. Unlike text files, a binary file is computer-readable but not human-readable.
- ③ **Database Files**: Origin supports importing data from many popular databases using ADO or ODBC.
- ④ **Third-Party Files**: Origin can import data from a wide variety of third-party file formats, such as NetCDF, pClamp, NI TDM, and so on.

- ① Copy & Paste data.
- ② Importing data by drag-and-drop.
- ③ Importing data using “**Import from File**” menu.

Import Single/ Multiple ASCII (Applicable for importing of ASCII files with more complex file structure, especially for the header lines. Customized settings can be saved as a **Dialog Theme** file for future use.)

Import Wizard (Applicable for importing of ASCII files with more complex file structure. Customized settings can be saved to a **Filter** file for re-use.)

Importing ASCII files



Import Single/ Multiple ASCII



ASCII: impASC

Dialog Theme <sheet> *

Import ASCII file

Import Options

Add Sparklines Yes(if less than 50 columns)

1st File Import Mode
Multi-File (except 1st) Import Mode

Template Name

Header Lines

Auto Determine Header Lines ☒

Line Number Start from Bottom ☐

Main Header Lines ☐ Fixed Number ☐ By Leading Character

Number of Subheader Lines 0

Long Names 1

Units 2

Comments From 3

Comments To 15

System Parameters From <none>

System Parameters To 0

User Parameters From <none>

User Parameters To 0

Composite Header Line No. <none>

File Structure

Columns

Rename Sheets and Books

Partial Import

Miscellaneous

Scripts

Output [F1]F1!1[1:1]

Related Apps OK Cancel

Save Settings for Drag and Drop

Save as <default>

Save

Save As...

System Default

Delete...

Compare...

Generate Script

<Last used>

thm002

thm523

Theme Save as...

Please specify a theme name

Theme Name

To save custom settings to the book(sheet), you must choose "Save Settings for Drag and Drop" from the Dialog Theme pop-up menu

OK Cancel

Main Header Lines	<p>Some files -- particularly those generated by lab instrumentation -- will have header information in the beginning of the file that typically identifies the instrument, the operator, the date, the sample number, etc. These are the main header lines. You can specify how to determine the number of main header lines with this control.(Note: This control is available only when Auto Determine Header Lines checkbox is cleared.)</p> <ul style="list-style-type: none">Fixed Number Select this radio box, and then enter the number of the main header lines in the following Input Number text box.By Leading Character Select this radio box to enter the leading characters to detect the header lines which started with the characters you entered in the following Input Leading Character text box. This control is available since Origin 2018b.
Number of Subheader Lines	<p>This control is available only when Auto Determine Subheader Lines checkbox are cleared.</p> <p>You can use this list to specify the number of subheader lines of your file.</p>

Import Wizard



中国科学技术大学
University of Science and Technology of China

Import Wizard - Source

Data Type

☒ ASCII ☐ Binary ☐ User Defined

Data Source

☒ File C:\Program Files\OriginLab\Origin2020b\Samples\Import and Export\F3.dat ...
☐ Clipboard

Import Filter

☒ List filters applicable to both Data Type and file name

Import Filters for current Data Type Origin Folder: ASCII

Description

Target Window

☒ Worksheet ☐ Matrix ☐ None (User Defined filter needs to create window)

Template <default>

Template could be used only when import mode is start new books or start new sheets

Import Mode Start New Books

Cancel << Back Next >> Finish

Import Wizard - Header Lines

☐ Auto determine header lines Main Header Lines ☒ Fixed Number 5 ☐ By Leading Character

Number of subheader lines 2 ☐ Line number start from bottom

Column Label Assignment from Subheader Lines

Long Names	1		Comments	<None>	to	0
Units	2		System Parameters	<None>	to	0
			User Parameters	<None>	to	0

☐ Extract Long Names and Units from ... Characters to skip on each line 0

Preview Font System Preview Lines 50

Prefix: S=Short Name, L=Long Name, U=Units, P=Parameters, C=Comment, MH=Main Header, SH=Subheader

```
001 001MH Version: 8.0
002 002MH Operator: Larry
003 003MH Experiment Data: 09/01/07
004 004MH Temperature: 37.5
005 005MH
006 001SH L Time Sample Error
007 002SH U sec
008 0 0.30553 0.00257
009 26 0.30376 0.00299
010 52 0.3084 0.00345
011 78 0.30702 0.00322
```

Cancel << Back Next >> Finish

Import Wizard



中国科学技术大学
University of Science and Technology of China

Import Wizard - Save Filters

Import Wizard settings can be saved to a filter file for re-use. Filter files can be selected on the first page of this wizard.

Once saved, import filters can also be used to automatically determine import settings when dragging and dropping data files into Origin and when opening data files with the File:Open menu item.

☐ Save filter

☐ In the data file folder
C:\Program Files\OriginLab\Origin2020b\Samples\Import and Export\

☒ In the User Files folder
C:\Users\zhang\Documents\OriginLab\User Files\Filters\

☐ In the Window

☐ Show Filter in File:Open List

Filter Description

Filter file name (.OIF extension will be appended)
ASCII

Specify data file names to which this filter will be associated. You can use wild cards, and can specify multiple names separated by ';'.

.dat;.txt;*.asc
Ex: *.txt or *.txt; *.dat; mydata????.*

☐ Specify advanced filter options

Cancel << Back Next >> Finish

Import Wizard - Source

Data Type
☒ ASCII ☐ Binary ☐ User Defined

Data Source
☒ File C:\Program Files\OriginLab\Origin2020b\Samples\Import and Export\F1.dat
☐ Clipboard

Import Filter
☒ List filters applicable to both Data Type and file name
Import Filters for current Data Type Origin Folder: ASCII

Description

Target Window
☒ Worksheet ☐ Matrix ☐ None (User Defined filter needs to create window)

Template <default>

Template could be used only when import mode is start new books or start new sheets

Import Mode Replace Existing Data

Cancel << Back Next >> Finish

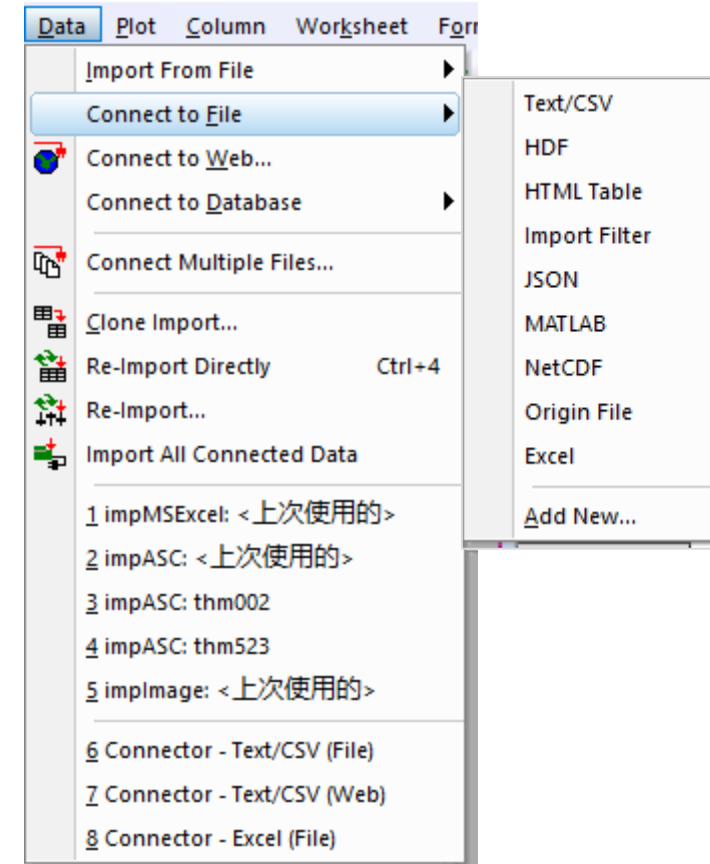
① Connect to File

Text/CSV, Excel, MATLAB, etc.

② Connect to Web

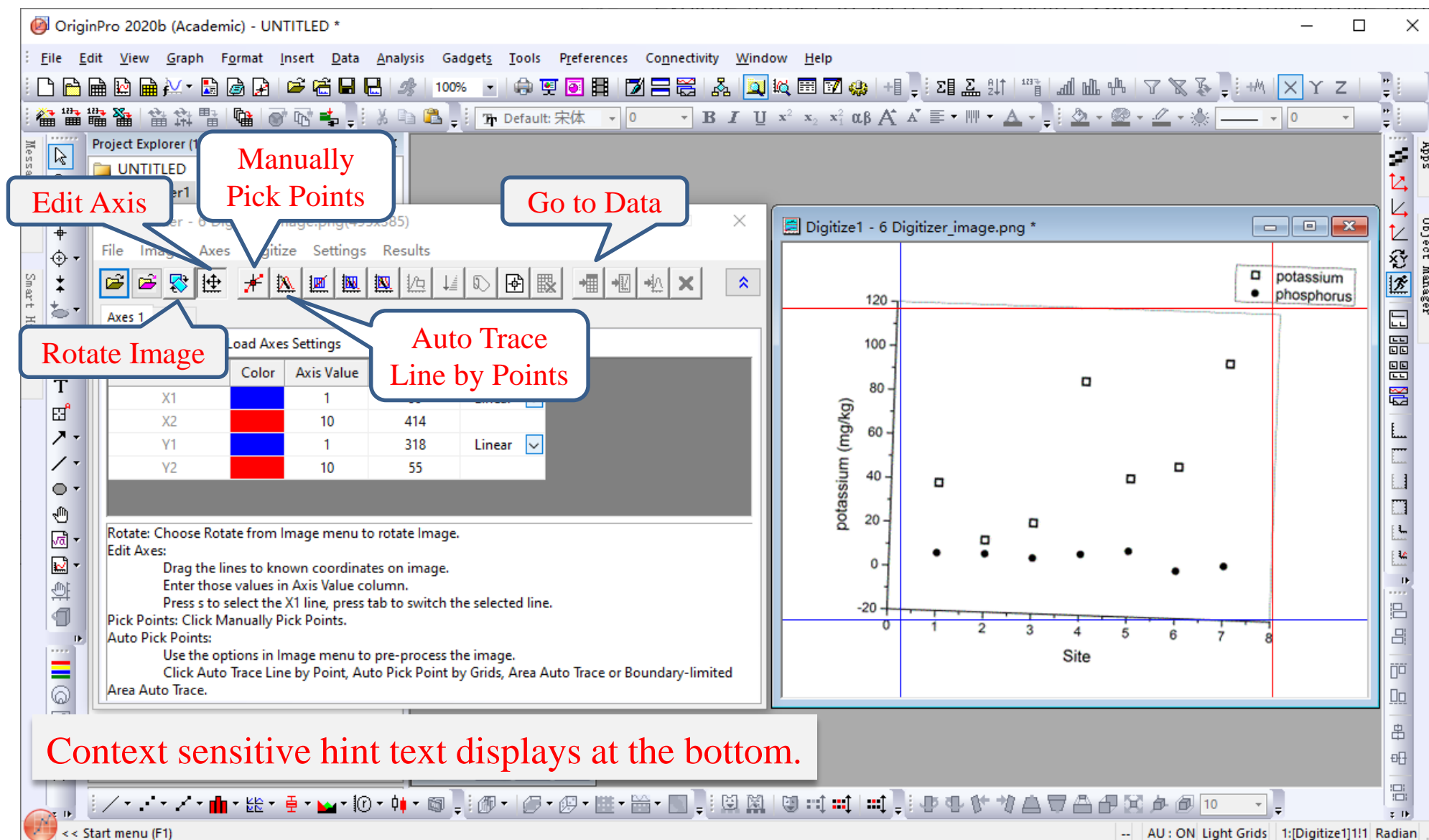
It builds connection between Origin worksheet and data file from an online path.

③ Connect to Database

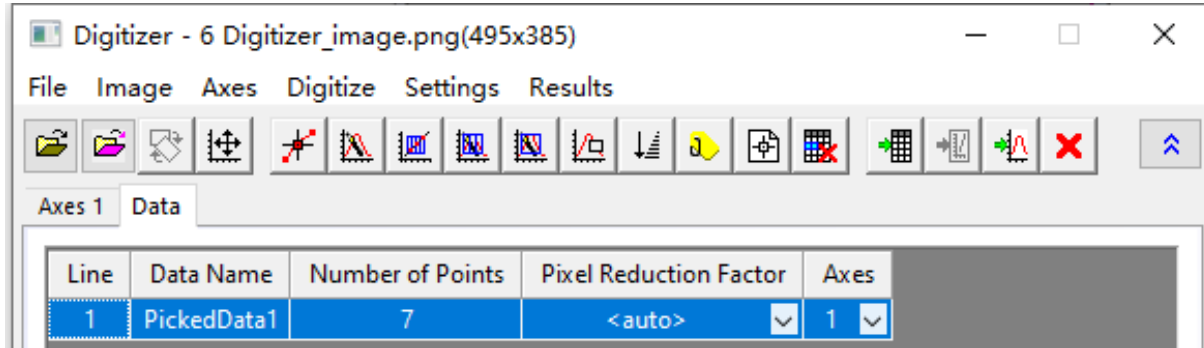


1. The Connector will lock imported data. This prevents accidentally changing the actual data.
2. The Connector will keep the connection to the source data, from the file or from the cloud.
3. Data imported using a Connector is typically not saved with project, making project files small. In 2020, files smaller than 500kB will be saved with the project but you will have control over default behaviors using LabTalk system variables.
4. For a text file, the CSV Connector can be used and it greatly improves the user experience, since for the majority of ASCII text files, you don't need to specify file structure and the process is entirely automatic. Compare this with the import dialogs where you need to specify details of the file structure and such things as date-time format, then save the settings as a Theme for future use.

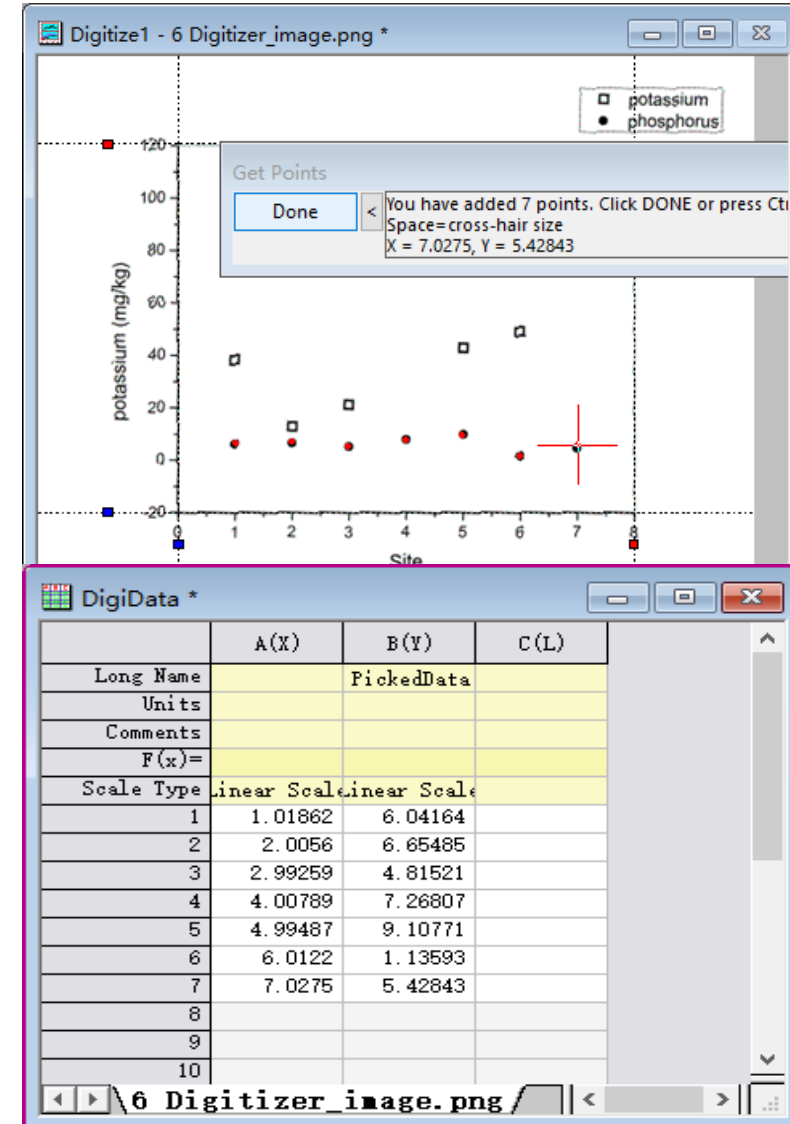
Digitizer



Digitizer



- ◆ Import most common image formats.
- ◆ Rotate image, as needed, and calibrate scales by picking start and end values.
- ◆ Pick points on curves manually or automatically.
- ◆ Modify the data points by reorder, delete them, or add label, as needed.
- ◆ Output the coordinate values of the selected data points into a worksheet or graph.

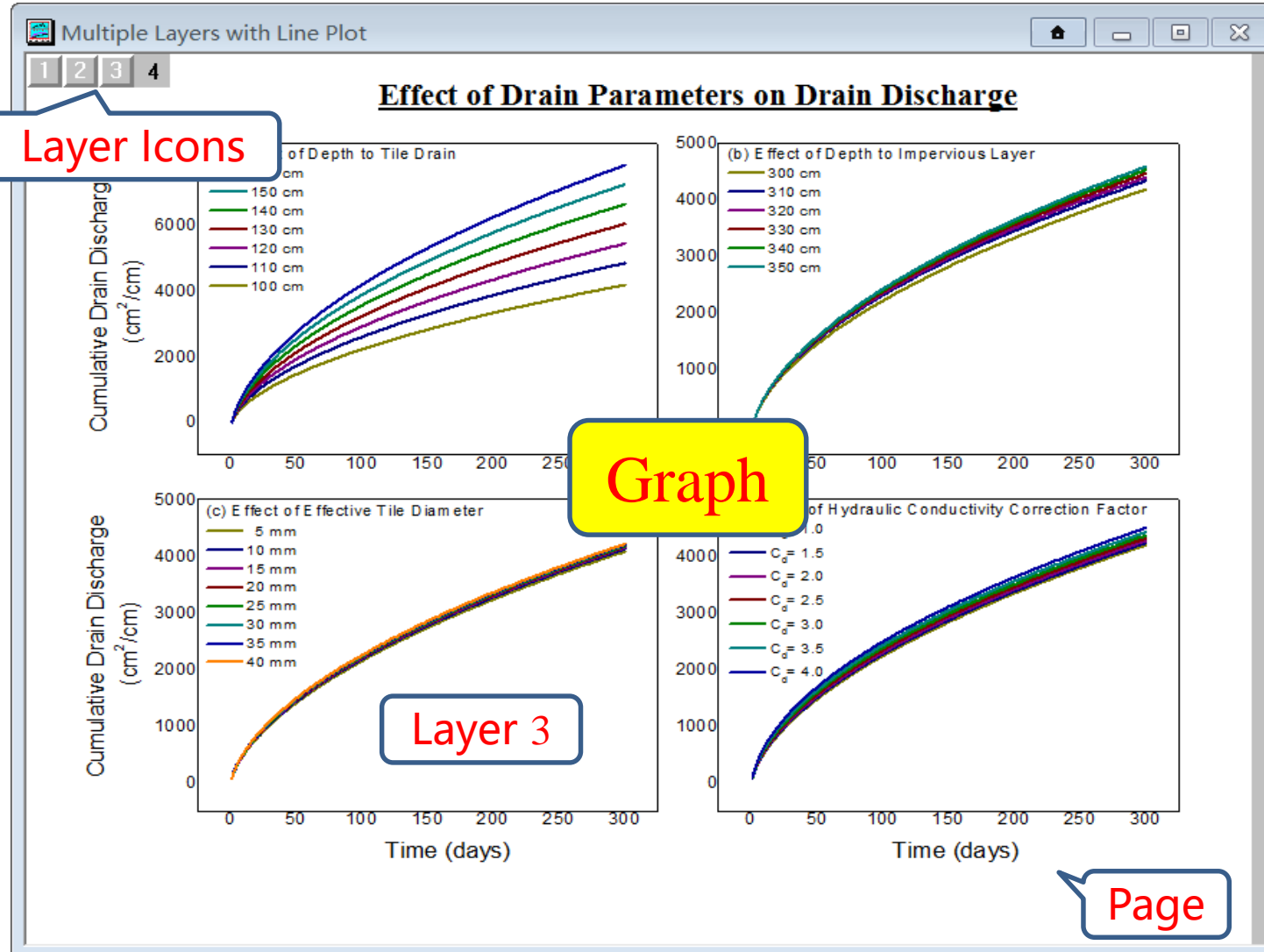


Scientific Graphing:

Basic Graphing – Graphing & Exporting



Graph Window



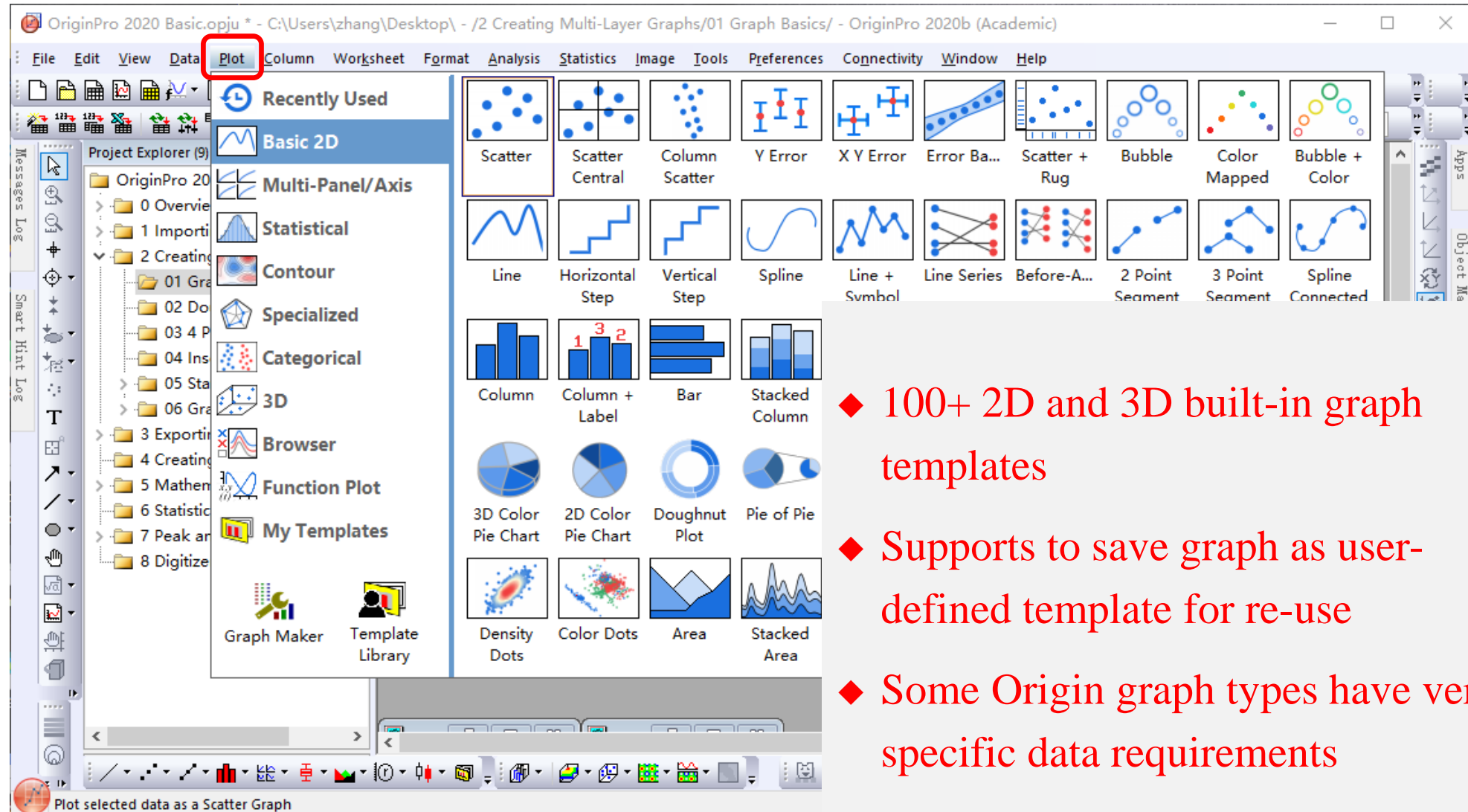
Hierarchical Structure

- ◆ **Page**: the white area of the graph window
- ◆ **Layer**: the page contains one or multiple layers
- ◆ **Data Plot**: each layer usually contains a set of axis, data plots, and the graph legend

Built-in Graph Template



中国科学技术大学
University of Science and Technology of China



- ◆ 100+ 2D and 3D built-in graph templates
- ◆ Supports to save graph as user-defined template for re-use
- ◆ Some Origin graph types have very specific data requirements

At a basic level, creating an Origin graph is a simple, two-step process:

1. **Select your data.** Origin uses the worksheet column **Plot Designation** to determine whether a column of values should be plotted against the X or Y axis or whether it should be used to create error bars, data labels, etc.
2. **Select the plot type.** A graph template is invoked that controls plot type and appearance (color, line and symbol styles, fill patterns, etc.). Your data are plotted using the template's saved settings.

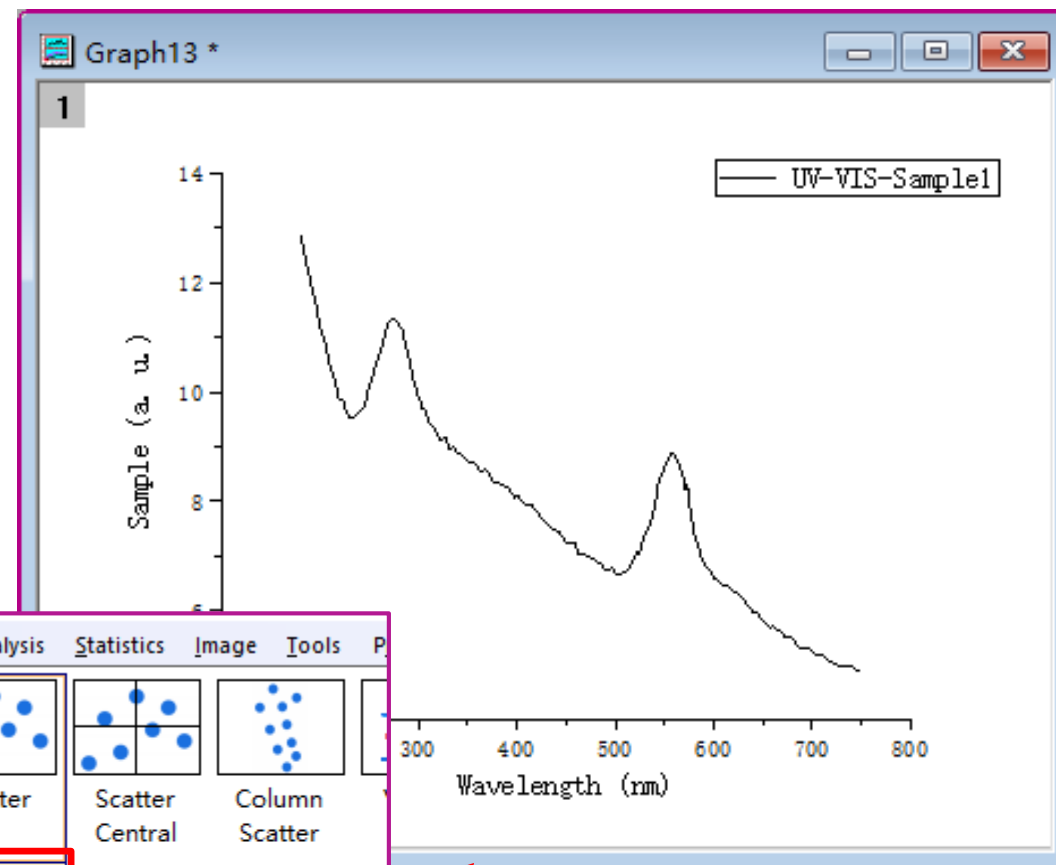
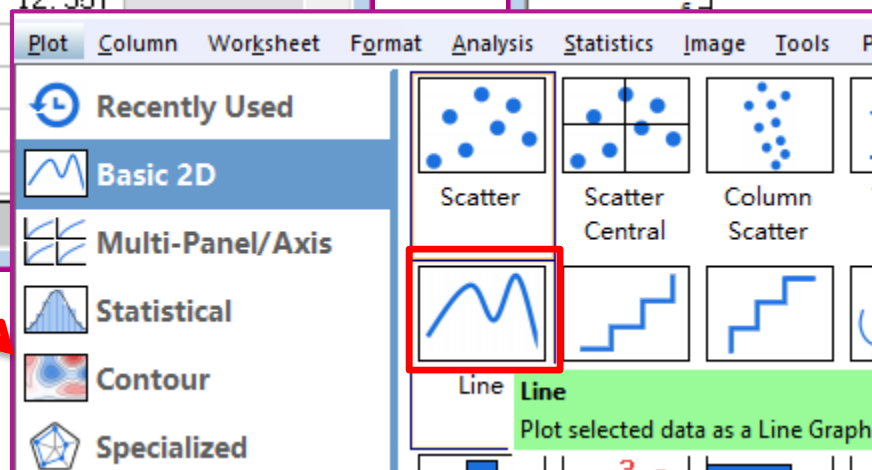
Basic Graphing



Book3

	A(X)	B(Y)
Long Name	Wavelength	Sample
Units	nm	a. u.
Comments	UV-VIS-Sample1	UV-VIS-Sample1
F(x)=		
1	180	12.86
2	181	12.777
3	182	12.693
4	183	12.609
5	184	12.525
6	185	12.441
7	186	12.357
8	187	
9	188	
10	189	
11	190	

Sheet1



Basic Graphing



Set Plot Designation

YError - Y Error

	A(X)	B(Y)	C(Y)
Long Name			
Units			
Comments			Y Error
F(x)=			
Sparklines			
1	Trial 1	12.099	0.86528
2	Trial 2	13.875	0.39649
3	Trial 3	15.993	0.44901
4	Trial 4	14.39	0.77041
5			
6			
7			
8			
9			
10			

Plot Column Worksheet Format Analysis Statistics Image Tools

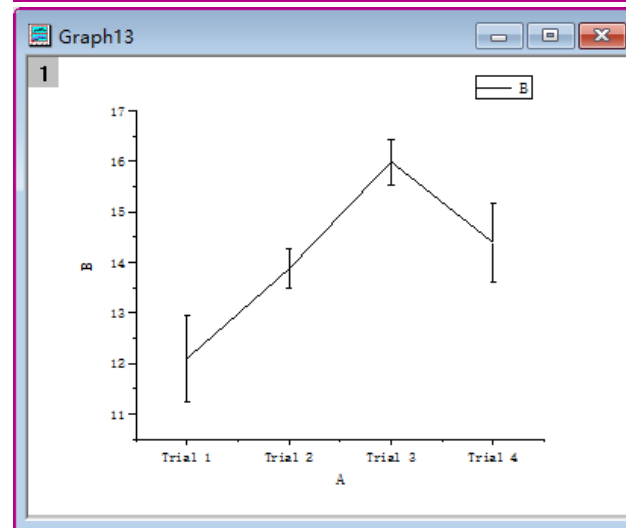
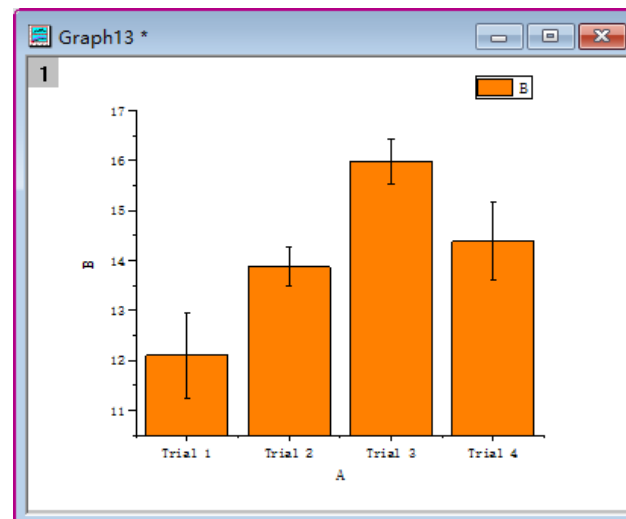
Recently Used

- Basic 2D
- Multi-Panel/Axis
- Statistical

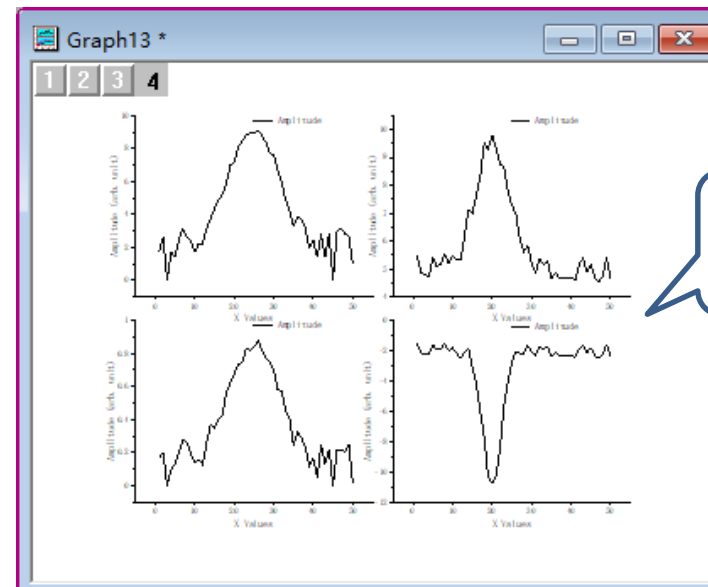
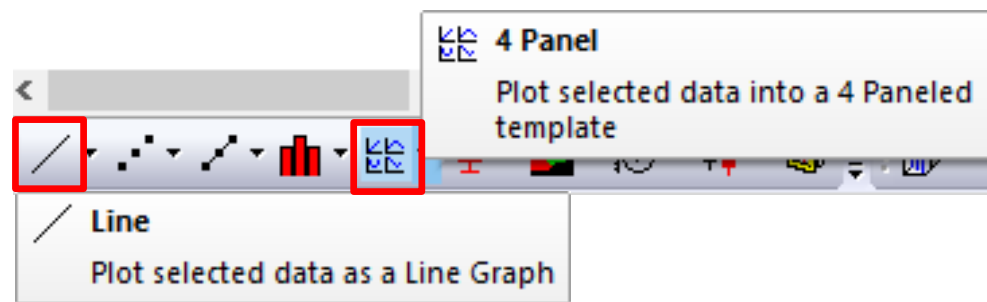
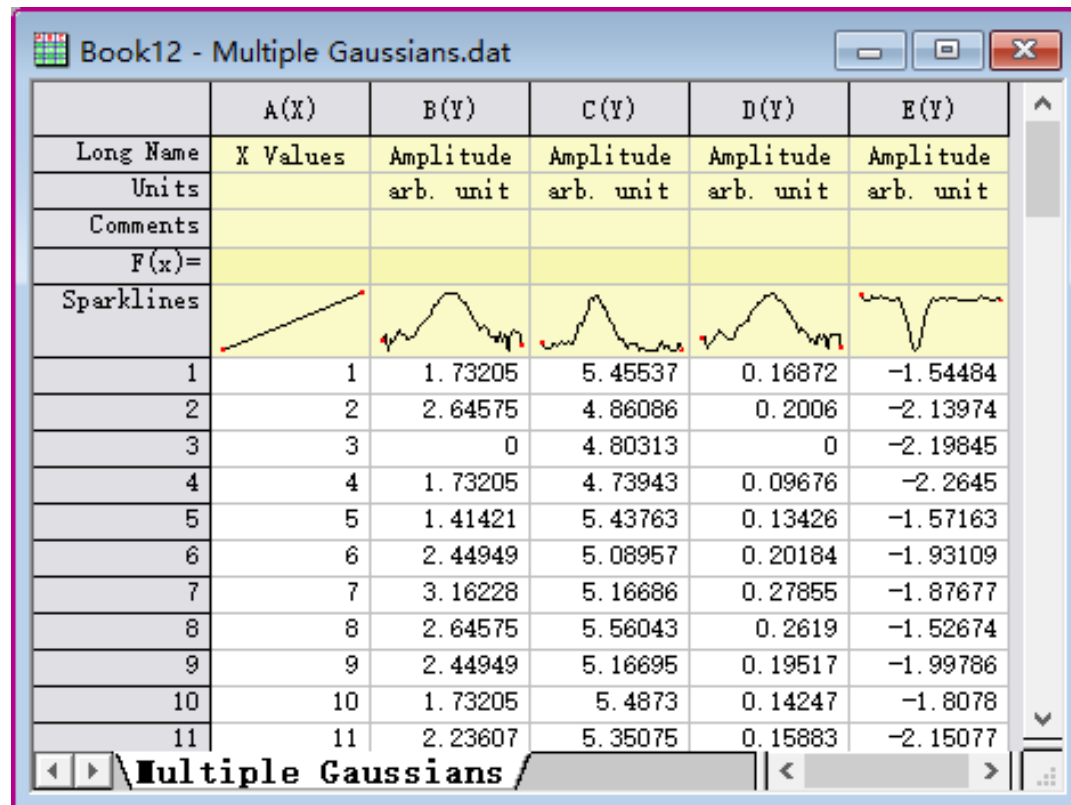
Y Error
Plot selected data with Y error bars

Plot

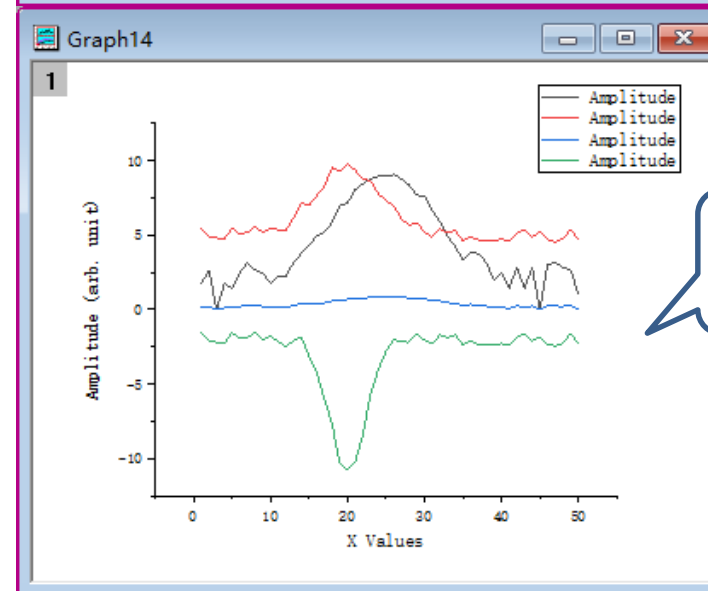
- Copy
- Copy Columns to...
- Delete
- Set As
 - X
 - Y
 - Z
 - Label
 - Disregard
 - X Error
 - Y Error
- Set As Categorical
- Set Column Values... Ctrl+Q
- Sort Column
- Sort Worksheet
- Hide/Unhide Columns
- Format Cells...
- Conditional Formatting
- Properties...



Basic Graphing



Multi-Panel Plot



Line Plot

The **Plot Setup** dialog box is a flexible all-in-one plotting tool for creating graphs and manipulating the data plots in an existing graph:

- ✓ Creating graphs **without regard to Column Plot Designations**
- ✓ Creating graphs **from a combination of data sources**: multiple worksheets, workbooks, matrixbooks, loose datasets, etc.
- ✓ Creating graphs combining multiple plot types.
- ✓ Adding, removing, replacing data plots.
- ✓ Grouping or ungrouping data plots.
- ✓ Reordering data plots in a layer or moving data plots to another layer.

Plot Setup Dialog



Book20 - automobile2000-2004.dat

	A(X)	B(Y)	C(Y)	D(Y)	E(Y)	F(Y)	G(Y)
Long Name	Year	Make	Power	0~60 mph	Weight	Gas Mileage	Engine Displacement
Units			kw	sec	kg	mpg	cc
Comments							
F(x)=							
Sparklines							
Filter	Greater than 1999						
Categories		Unsorted					
229	2000	Kia	58	12	985	26	1606.2
230	2000	Lincoln	51	16	1129	25	1491.5
231	2000	Infiniti	59	16	1326	24	1901.2
232	2000	Saab	69	14	1412	24	1852.1
233	2000	Lexus	64	21	1786	26	1835.7
234	2000	Volvo	84	12	967	26	2835.5
235	2000	Kia	52	18	773	25	1475.1
236	2000	Suzuki	61	17	987	26	2212.6
237	2000	Saturn	67	14	929	25	2556.8
238	2000	Saturn	66	21	1343	25	1606.2
239	2000	Nissan	64	14	1338	24	2474.9
240	2000	Chrysler	33	19	1233	25	1589.8
241	2000	Mazda	69	16	970	24	1704.6
242	2000	Nissan	66	18	1007	26	2474.9
							1589.8
							1294.8
							1606.2
							1999.6
							1606.2

4 Panel
Plot selected data into a 4 Paneled template

To create a graph with the **Plot Setup** dialog, make sure no data is selected in the active worksheet and choose the plot type that you want to create the graph.

Plot Setup Dialog



Plot Setup: Select Data to Create New Plot

Available Data:

Worksheets in Folder

Include Shortcuts

Right-click on various panels to bring up context menus.

Plot Type:

Line

Scatter

Line + Symbol

Column / Bar

Area

Stacked Area

Fill Area

Book	Book Short Name	Sheet	Sheet Label	Cols	Rows	File Name	File Date	Folder
automobile1992-1999.dat	Book19	automobile		7	360	automobile.dat	2016/11/9	/Origin 2020
automobile2000-2004.dat	Book20	automobile		7	360	automobile.dat	2016/11/9	/Origin 2020

3. Make Plot Assignment

X	Y	yEr	L	Column	Long Name	Comments	Sampling Interval	Position
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B	Make			2
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	Power			3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D	0~60 mph			4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	Weight			5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F	Gas Mileage			6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G	Engine Displacement			7

4. Add Plots to Layer

Plot List: Drag entries in 1st column to reorder or to move between layers. Right click for other options.

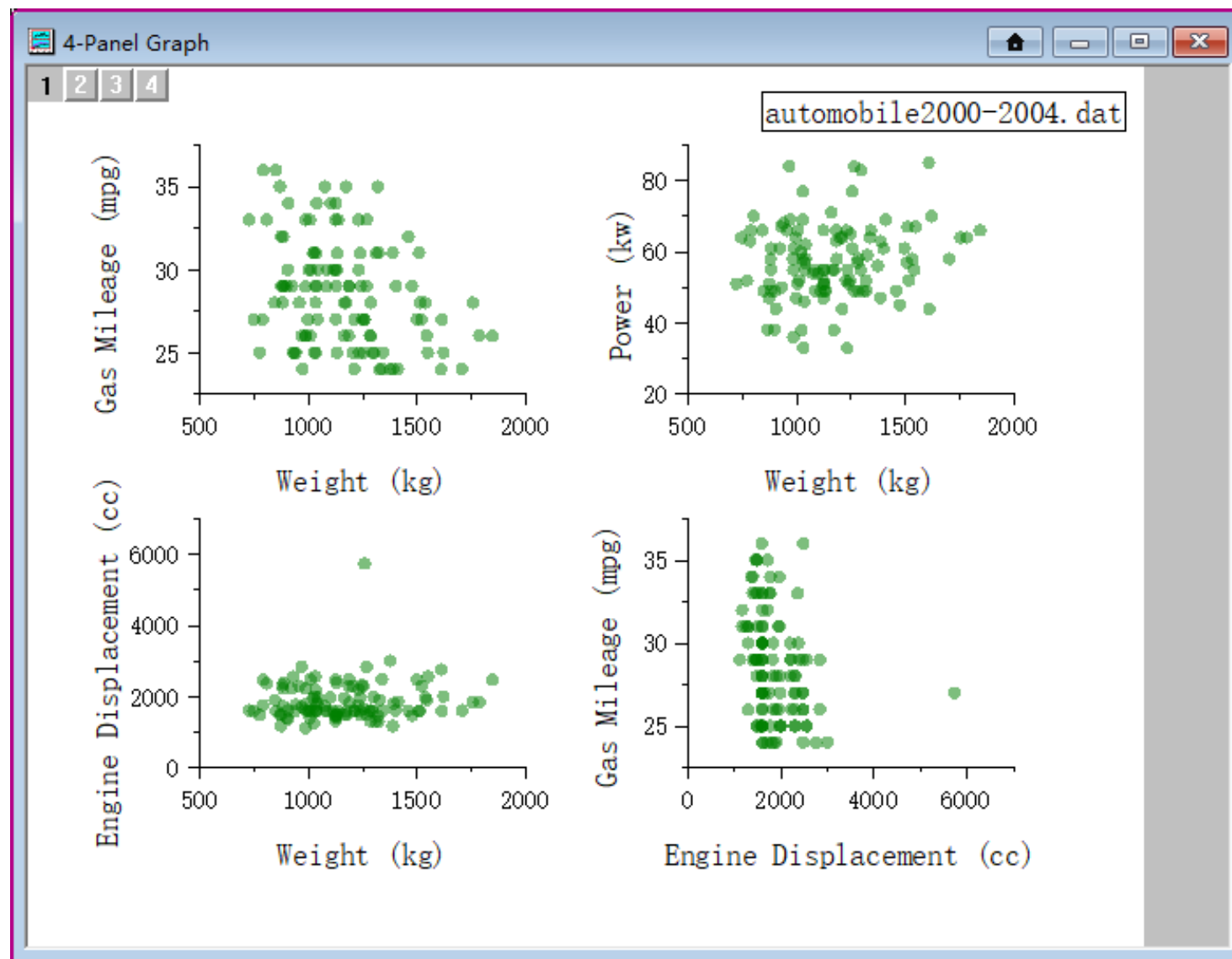
Replace Add

Plot	Range	Show	Plot T
Layer 1		<input checked="" type="checkbox"/> Rescale	<input checked="" type="checkbox"/>
[automobile2000-2004.dat]automobile! "Weight"(X), "Gas Mileage"(Y)	[1*:340*] 724 < X < 2324, 10 < Y < 36	<input checked="" type="checkbox"/> Rescale	<input checked="" type="checkbox"/> Line
Layer 2		<input checked="" type="checkbox"/> Rescale	<input checked="" type="checkbox"/>
Layer 3		<input checked="" type="checkbox"/> Rescale	<input checked="" type="checkbox"/>

5. Click OK or Apply to create graph

Preview OK Cancel Apply

Plotting Using Plot Setup Dialog



Method 1 - Preset Plot Designations

- ① Import your data and set the worksheet's column **Plot Designations**
- ② Select columns
- ③ Choose your plot type (graph template)

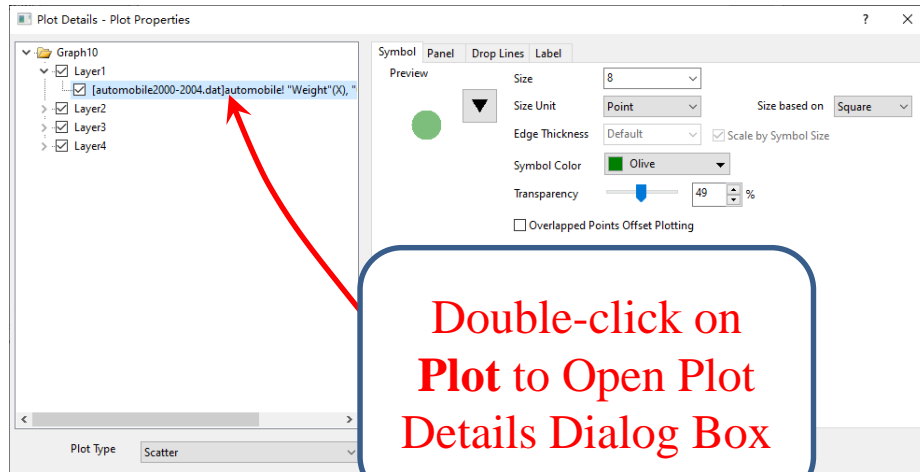
Method 2 - Using Plot Setup Dialog

- ① Import your data to the workbooks (worksheets)
- ② Make sure nothing is selected in the workbooks, and then select a graph template to bring up **Plot Setup** dialog
- ③ Choose data source, re-set plot designation, and add plots to create a graph

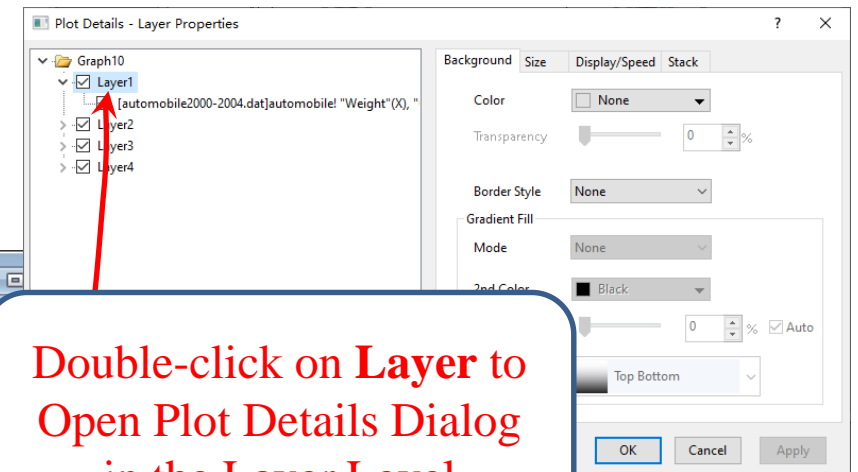
Graph Customization



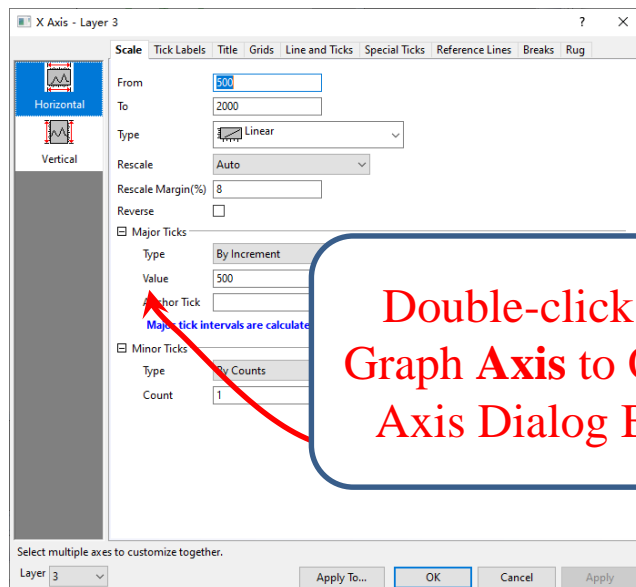
中国科学技术大学
University of Science and Technology of China



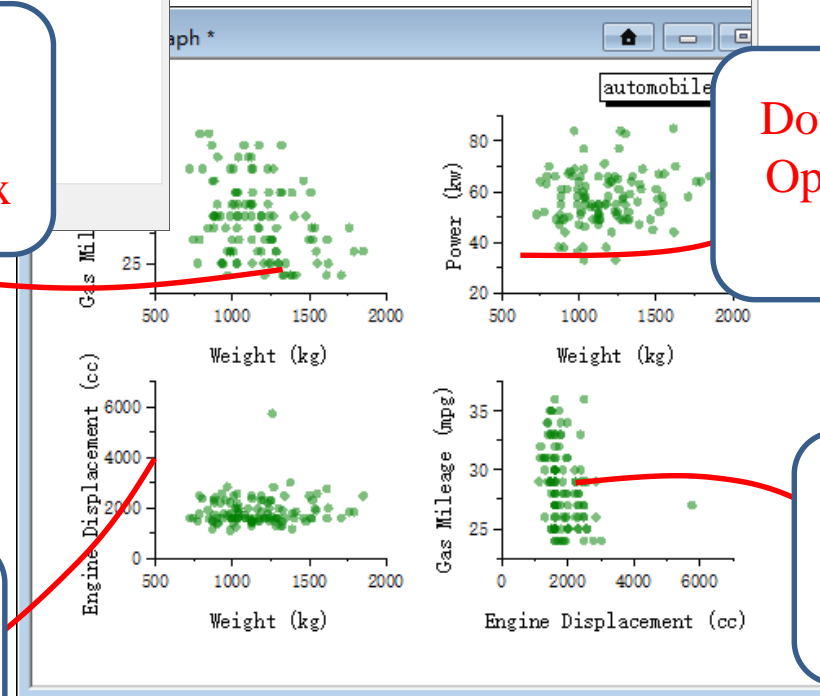
Double-click on
Plot to Open Plot
Details Dialog Box



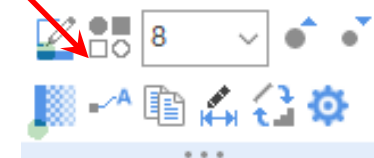
Double-click on **Layer** to
Open Plot Details Dialog
in the Layer Level



Double-click on
Graph Axis to Open
Axis Dialog Box



Single-click on Graph
Object to Produce a Mini
Toolbar for quick edits

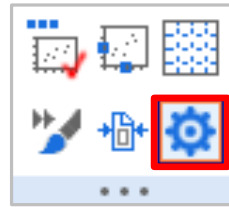


Mini Toolbars



Click on ...

... an empty spot
on the graph page



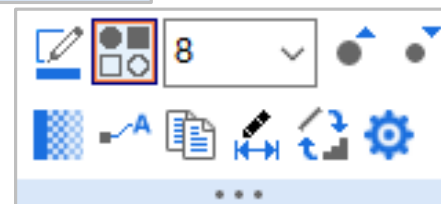
Open Properties Dialog

... an empty spot
inside the graph layer



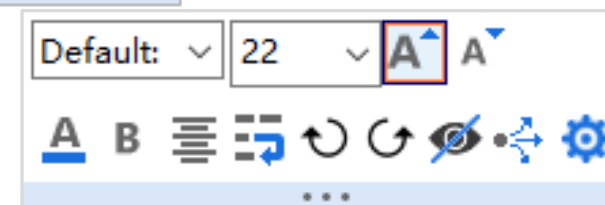
Layer Frame
Hide Show Layer Frame

... on a data
plot



Plot Symbol

... on a text or
drawn object



Increase Font Size

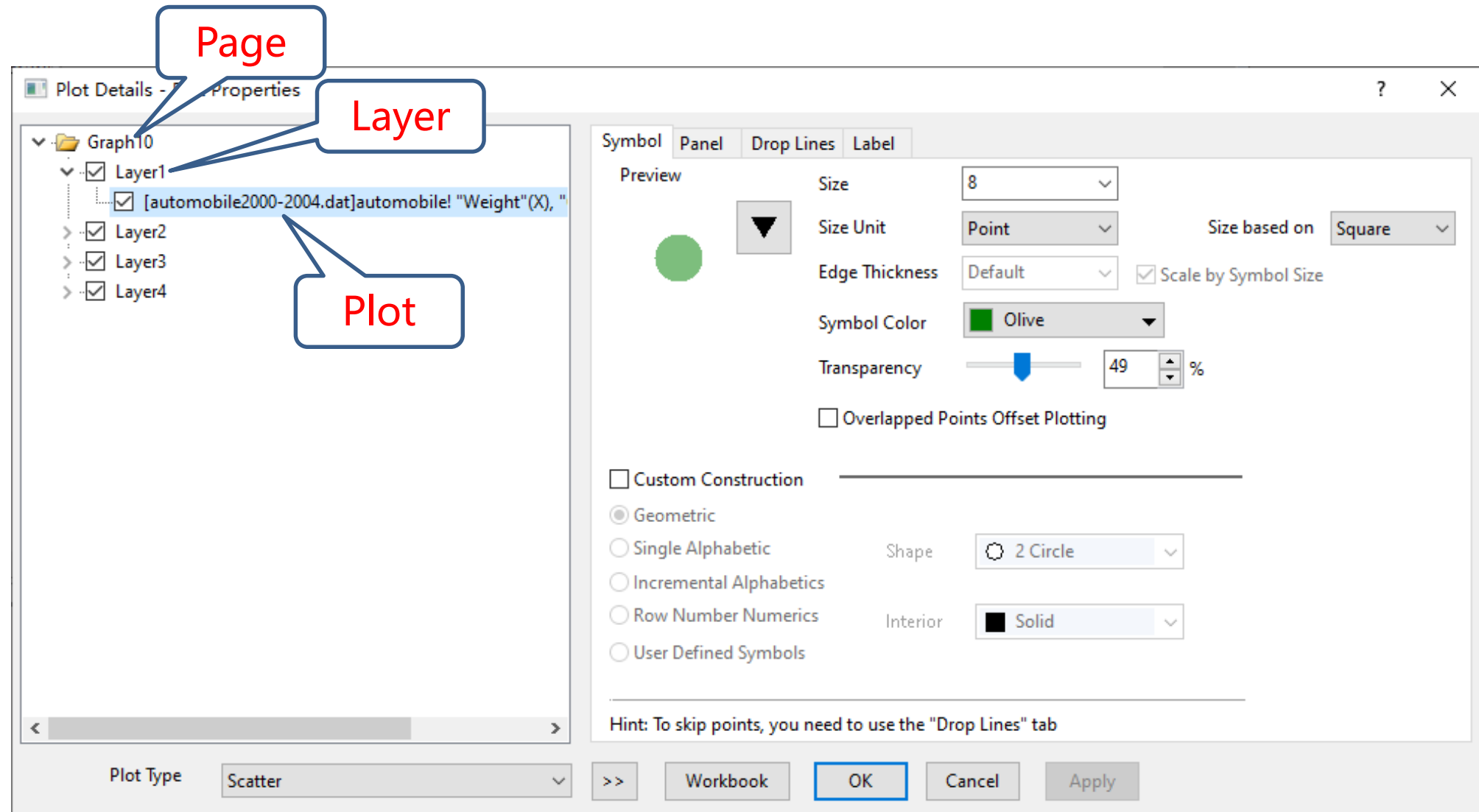
... on a graph
axis or tick label



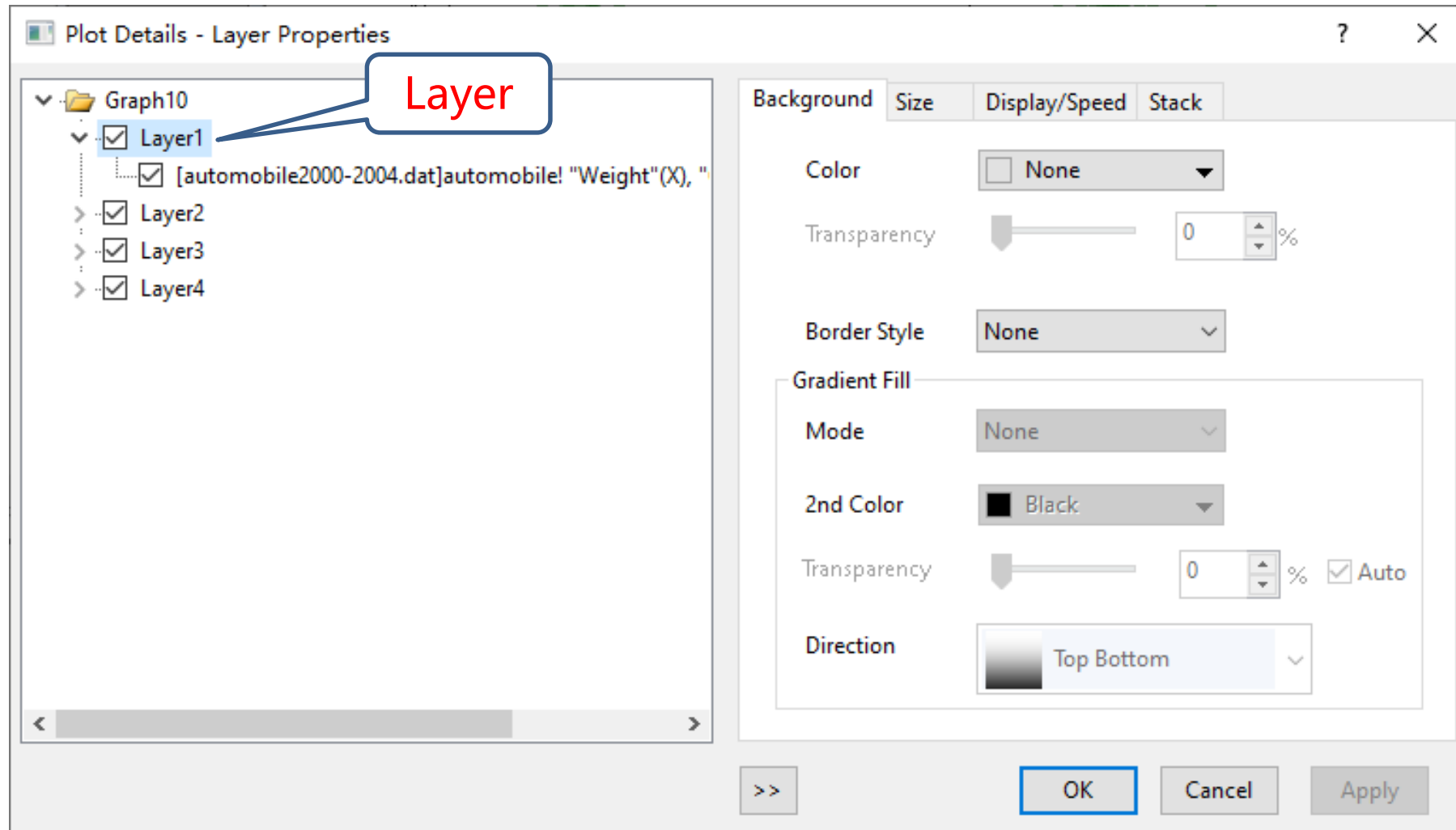
Axis Scale

... to edit common properties of these objects

Plot Details Dialog Box



Plot Details Dialog Box



Axis Dialog Box



中国科学技术大学
University of Science and Technology of China

Reference Lines

X Axis - Layer 1

Scale | Tick Labels | Title | Grids | Line and Ticks | Special Ticks | Reference Lines | Breaks | Rug

Horizontal

Vertical

From: 500

To: 2000

Type: Linear

Rescale: Auto

Rescale Margin(%): 8

Reverse: ☐

Major Ticks

Type: By Increment

Value: 500

Anchor Tick:

Major tick intervals are calculated from Anchor Tick value.

Minor Ticks

Type: By Counts

Count: 1

Select multiple axes to customize together.

Layer 1

Apply To... OK Cancel Apply

Breaks

X Axis - Layer 1

Scale | Tick Labels | Title | Grids | Line and Ticks | Special Ticks | Reference Lines | Breaks | Rug

Bottom

Top

Left

Right

Show Line and Ticks: ☒

Use Same Options for Bottom and Top: ☐

Line

Show: ☒

Color: Black

Thickness: 0.3

Axis Position: Bottom

Arrow

Major Ticks

Style: Out

Length: 8

Color: Auto

Thickness: Auto

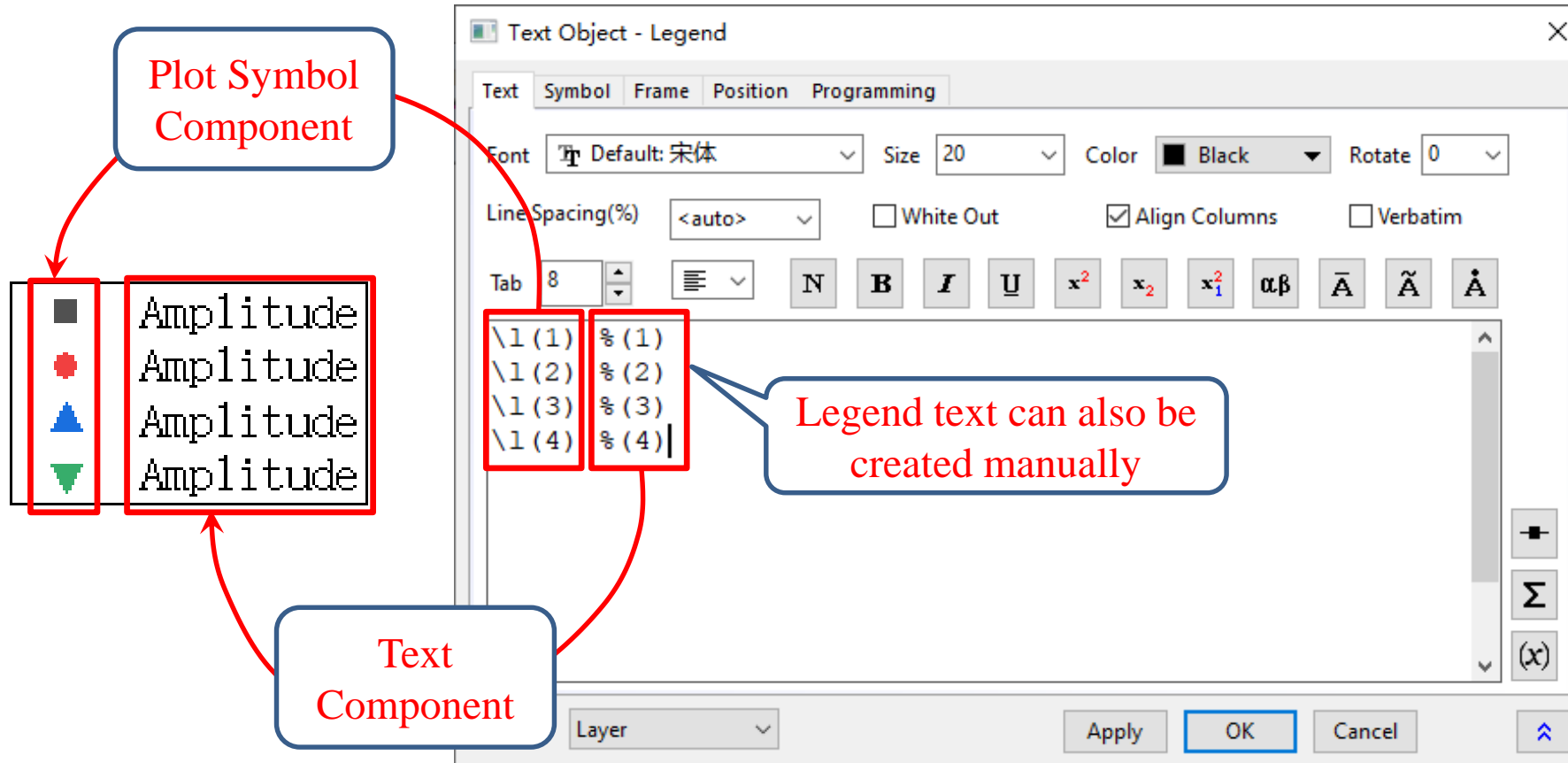
Minor Ticks

Select multiple axes to customize together.

Layer 1

Apply To... OK Cancel Apply

Graph legends



Plot Symbol Component: $\backslash L([LayerIndex.]PlotIndex[,PointIndex[,option]])$

Text Component: $\%([LayerIndex.]PlotIndex[Axis[, @option]])$

Note: Square brackets in the syntax model indicate an optional argument.

Graph legends



Legend of Specific Plot/Symbol

Legend Entry	Description
$\backslash(1) \%(1)$ $\backslash(2) \%(2)$	<p>Both lines are the legends for the data plots in the active layer. The first line is for the first plot, and the second line for the second plot.</p> <p>Based on the typical default specified in the Legends/Titles tab in the Plot Details dialog of the graph, the legend's label will look for Comments in the source data worksheet, if no Comments then Long Name will be used, and if no Long Name, Short Name is used.</p>
$\backslash(1.1) \%(1.1)$ $\backslash(2.1) \%(2.1)$	<p>The first line is the legend for the first plot in the first layer, and the second line for the first plot in the second layer.</p>

Auto Legend

Text Component: $\%([LayerIndex.]PlotIndex[Axis[, @option]])$

Translation Mode of $\%(1) \%(2)$

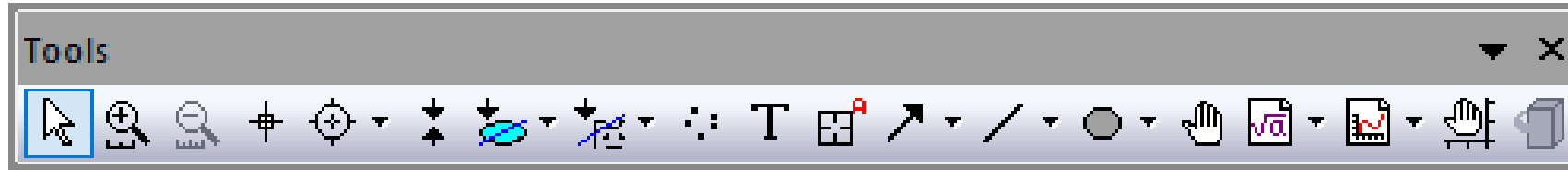
Use this drop-down list to specify the worksheet column header information that should be used in the graph legend.

@LM: Use Comment (1st line)	<div>Default setting.</div> Use the 1st line of the Comment row (if any). Otherwise use the column Long Name . If neither Comments nor Long Name contains contents, use the Short Name of the corresponding column.
@R: Data Range	Workbook data range of plot. The syntax would be [Workbook]Worksheet!Col(Index)[start index, end index] .
@U: Long Name & Units	<p>Use the variables in column label rows of Long Name combined with that in Units. The display format would be Long Name(Unit) in English and Japanese versions of Origin, and Long Name[Unit] in German version.</p> <p>If there is no contents in Long Name, the column Short Name will be used instead.</p>

Annotating The Graph



中国科学技术大学
University of Science and Technology of China

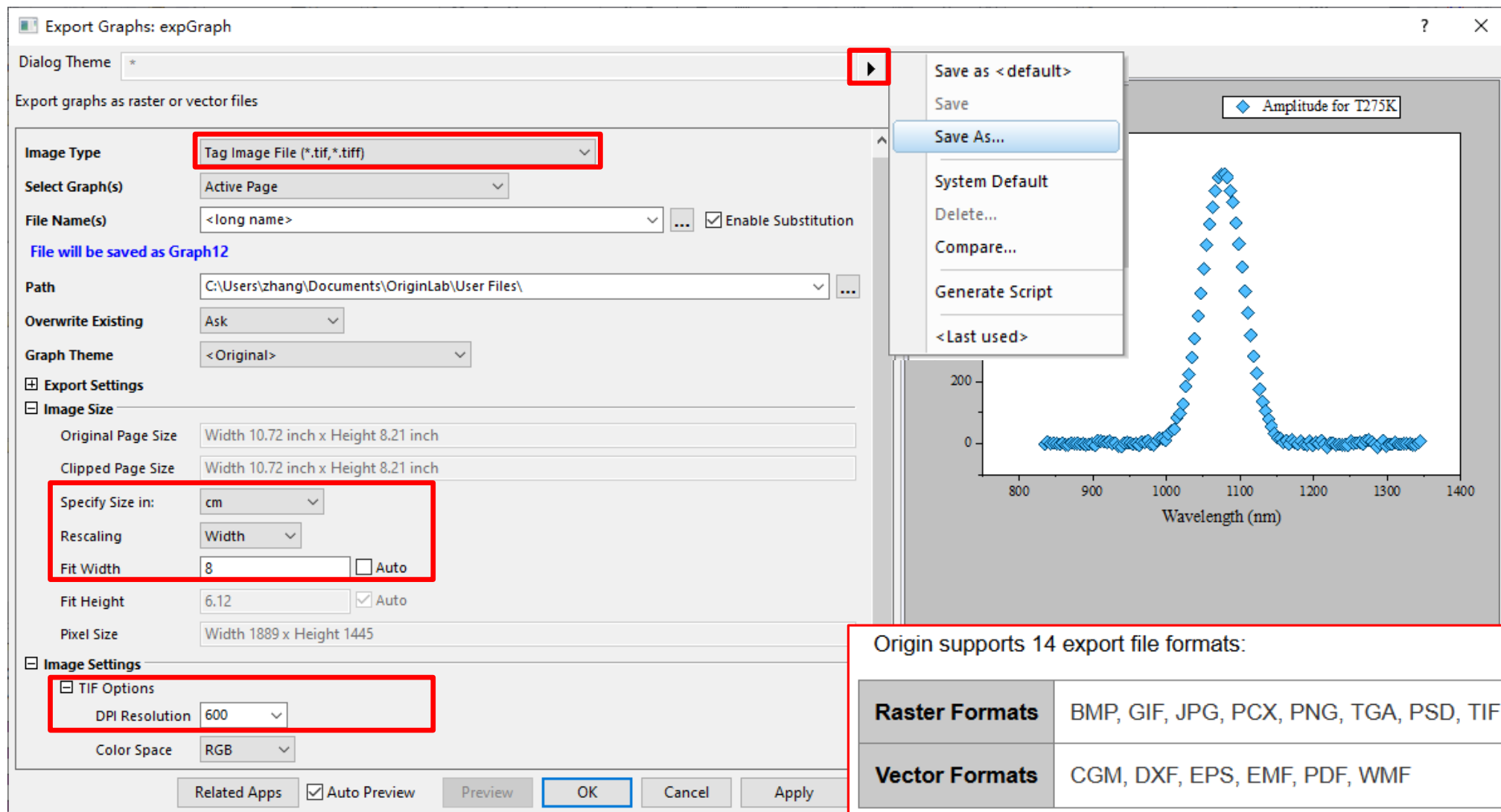


- ◆ Add Text Objects
- ◆ Add Drawing Objects
- ◆ Annotate a Data Point
- ◆ Mask Points
- ◆ Add Table
- ◆ Insert Equation/Image



- ◆ Grouping, Aligning and Arranging with the Object Edit Toolbar

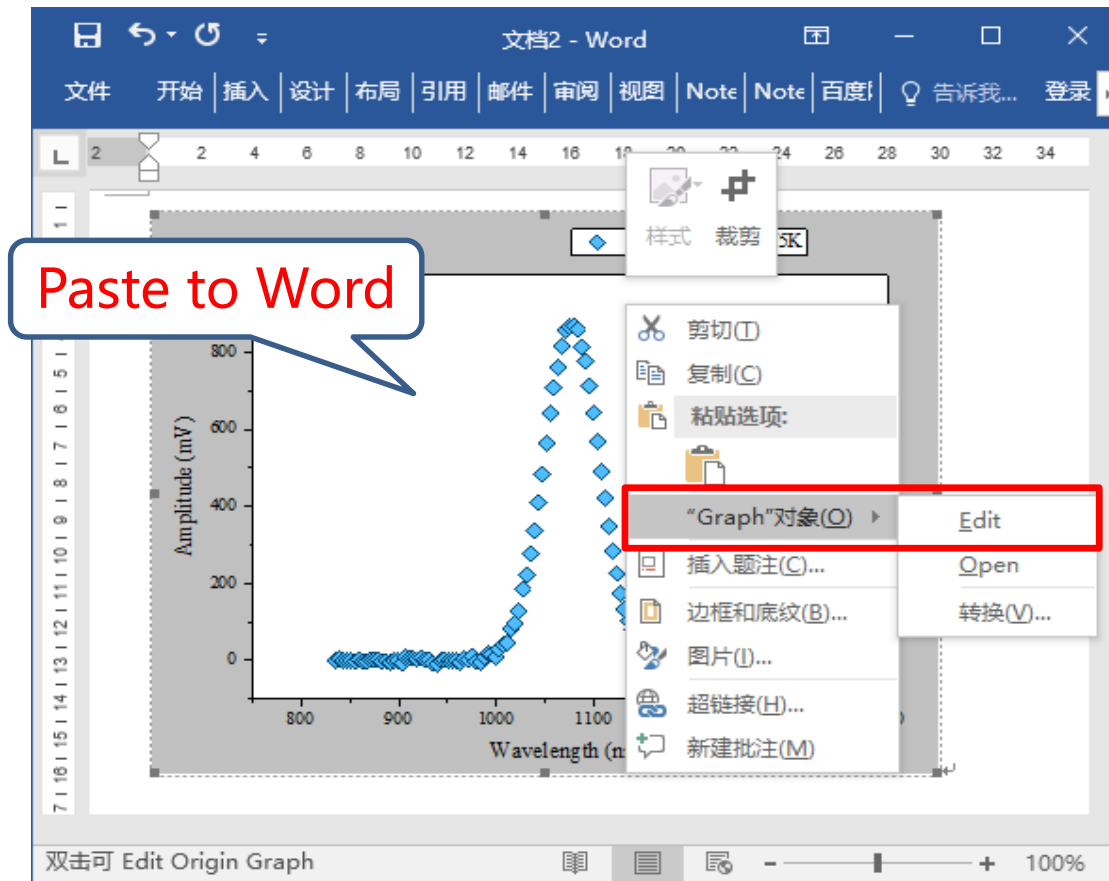
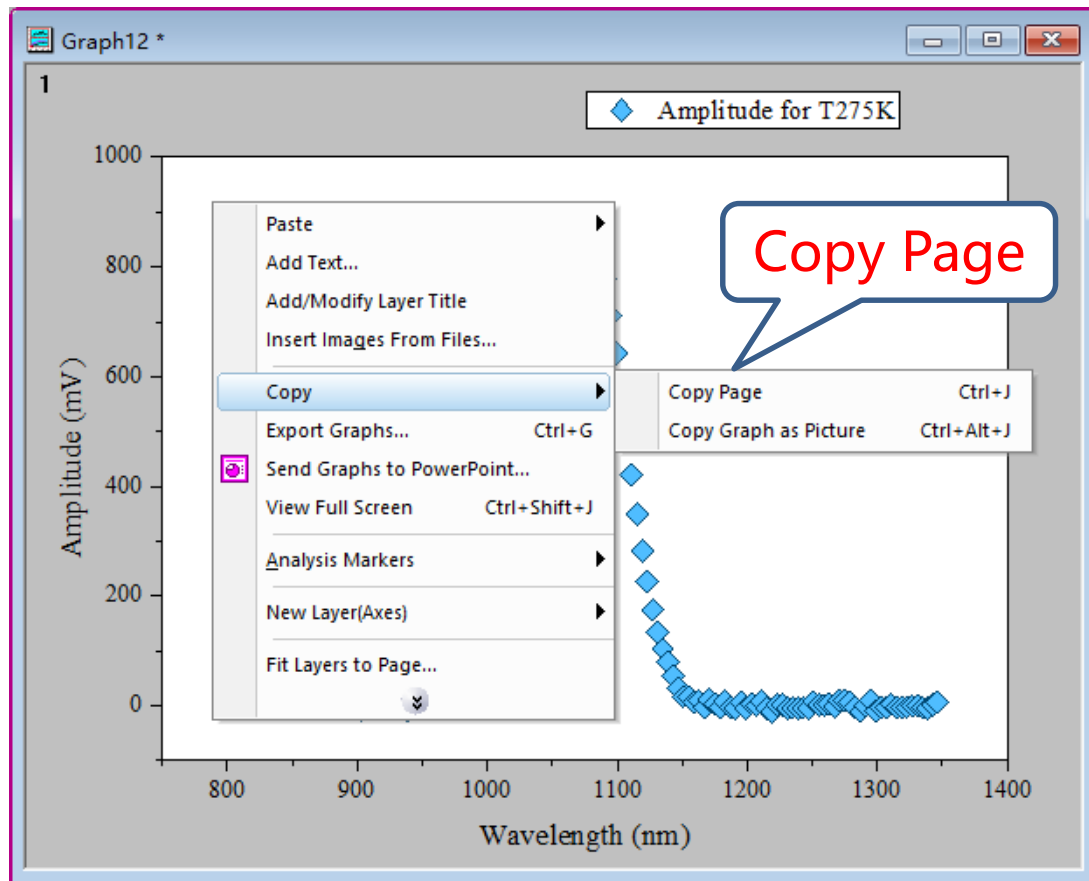
Exporting Graphs



Copying & Pasting Graphs to Word



中国科学技术大学
University of Science and Technology of China



Scientific Graphing:

Grouped Column Plot with Indexed Data



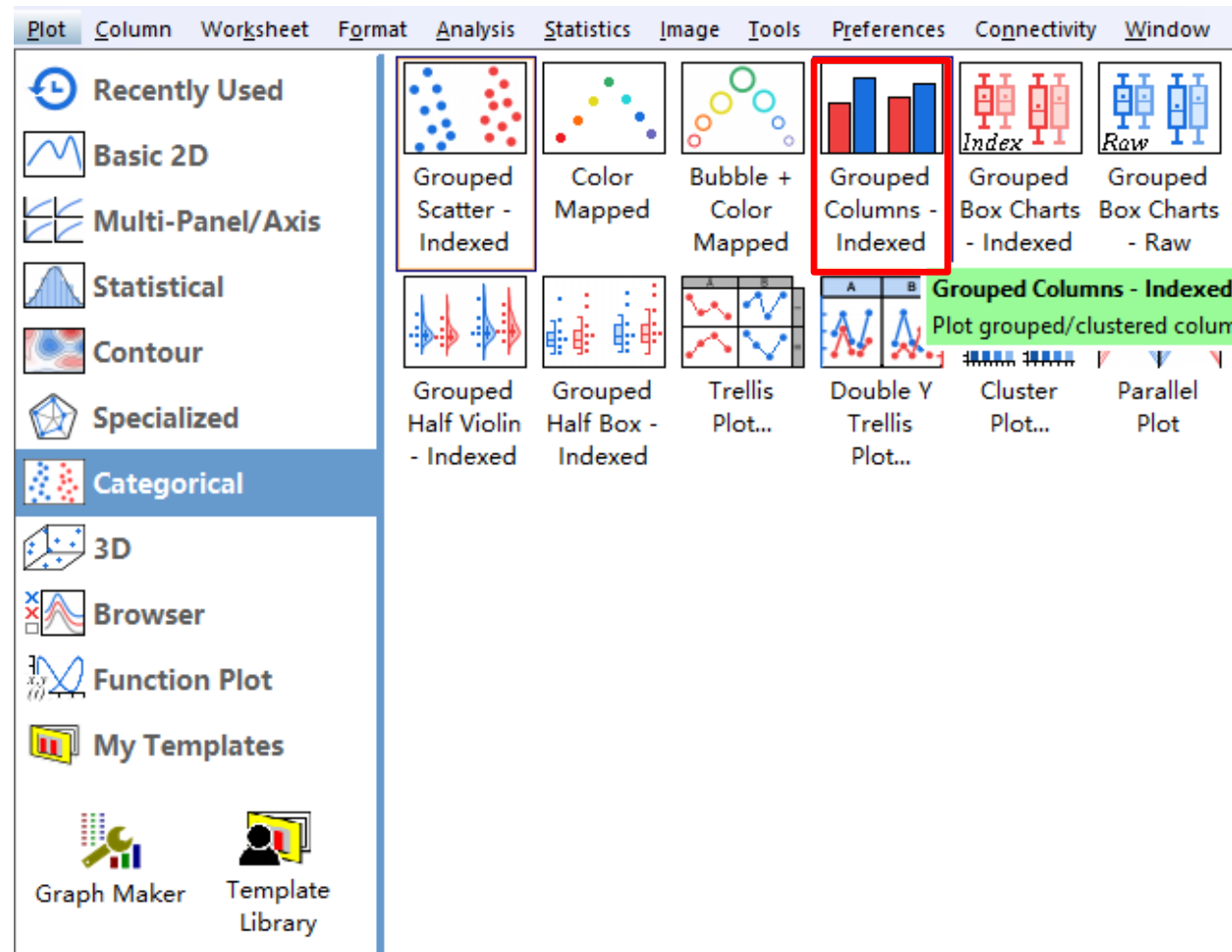
Grouped Column Plot



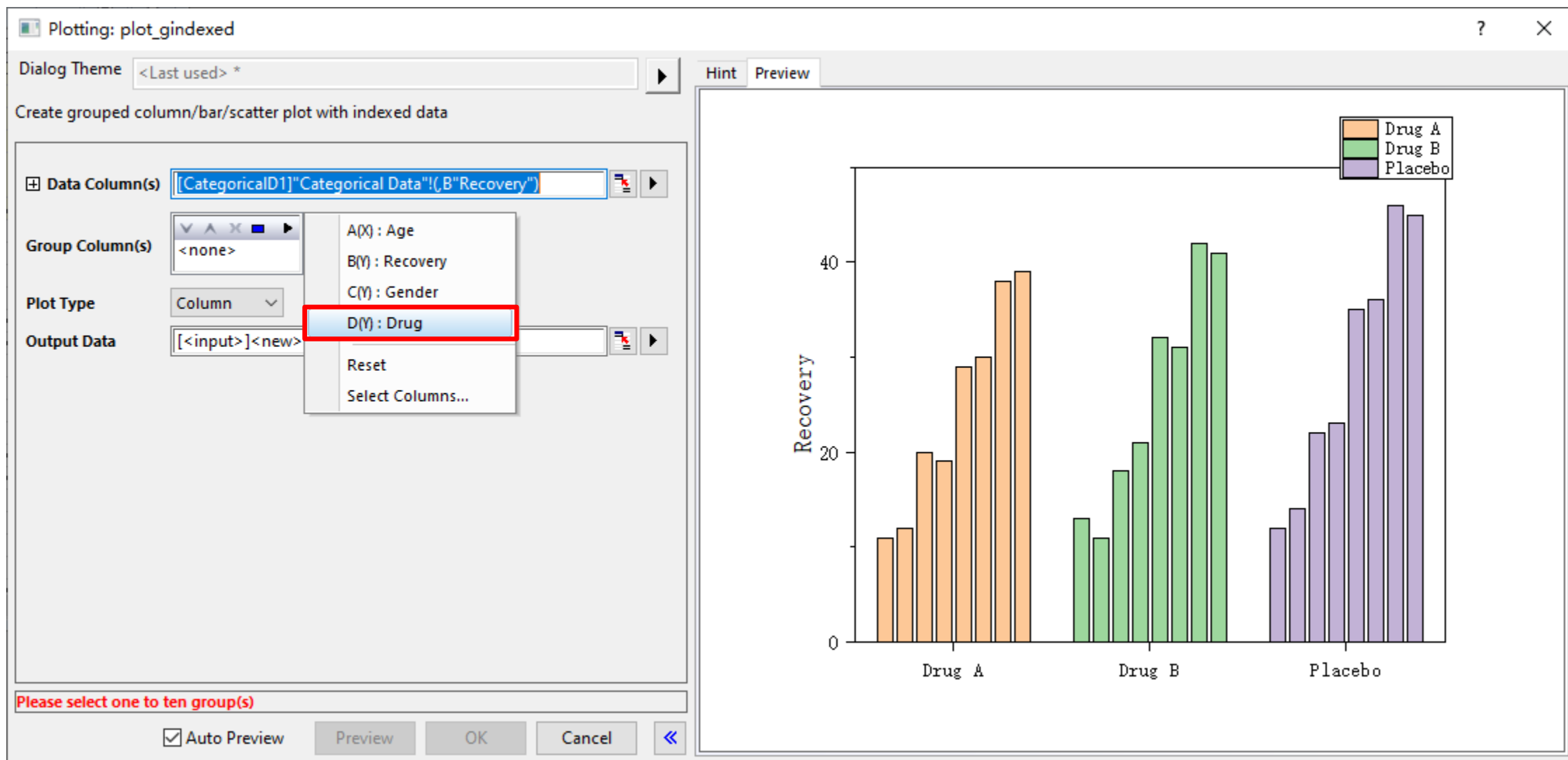
CategoricalD1 - Categorical Data.dat *

	A(X)	B(Y)	C(Y)	D(Y)
Long Name	Age	Recovery	Gender	Drug
Units				
Comments				
F(x)=				
Sparklines				
Categories				Unsorted
1	20	11	Male	Drug A
2	23	12	Female	Drug A
3	22	13	Female	Drug B
4	23	11	Male	Drug B
5	21	12	Male	Placebo
6	23	14	Female	Placebo
7	36	20	Male	Drug A
8	32	19	Female	Drug A
9	34	18	Female	Drug B
10	34	21	Male	Drug B
11	36	22	Male	Placebo
12	35	23	Female	Placebo
13	45	29	Male	Drug A
14	44	30	Female	Drug A
15	44	32	Female	Drug B
16	43	31	Male	Drug B
17	44	35	Male	Placebo
18	45	36	Female	Placebo
19	57	38	Male	Drug A

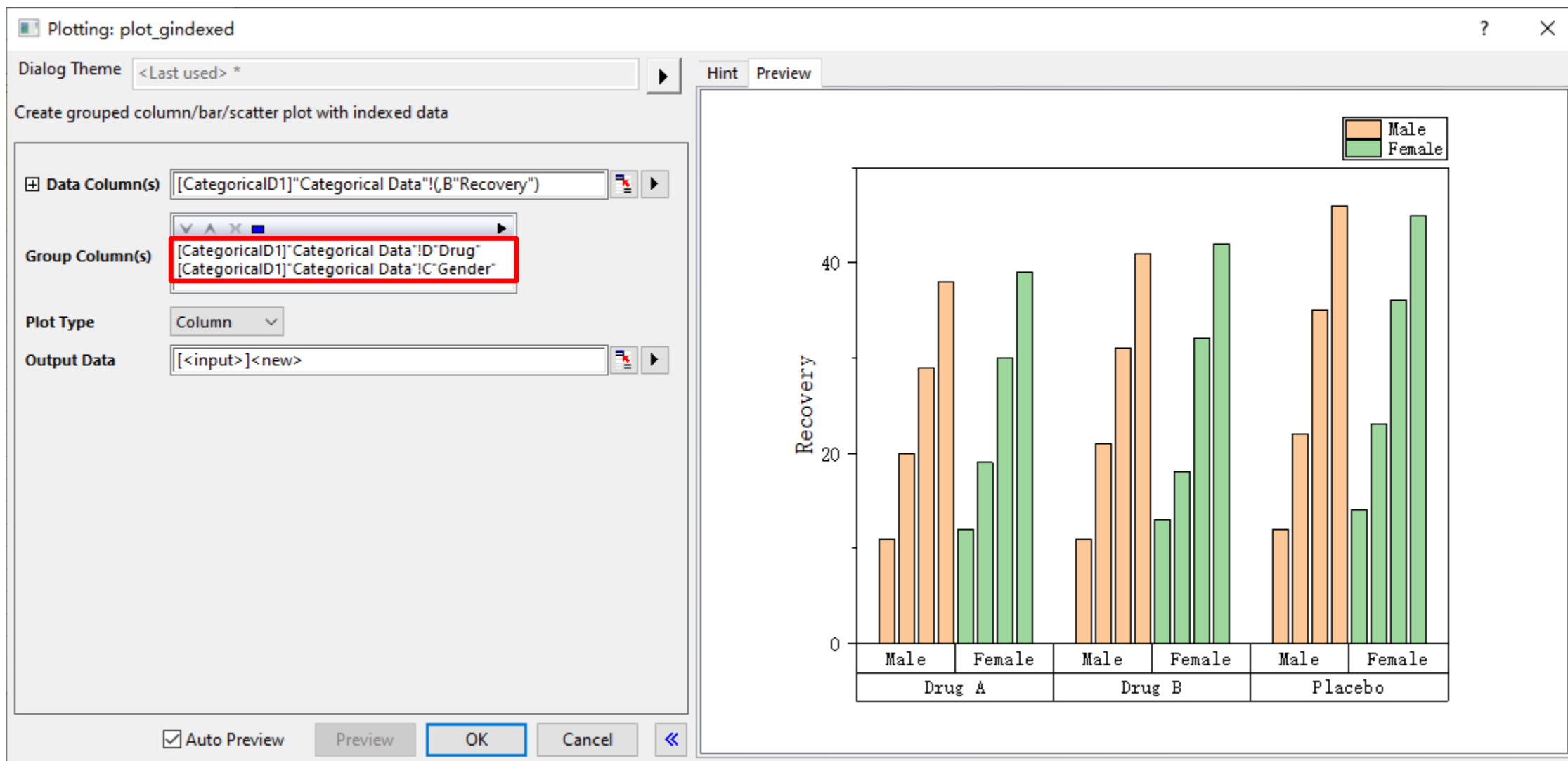
Categorical Data/



Grouped Column Plot



Grouped Column Plot



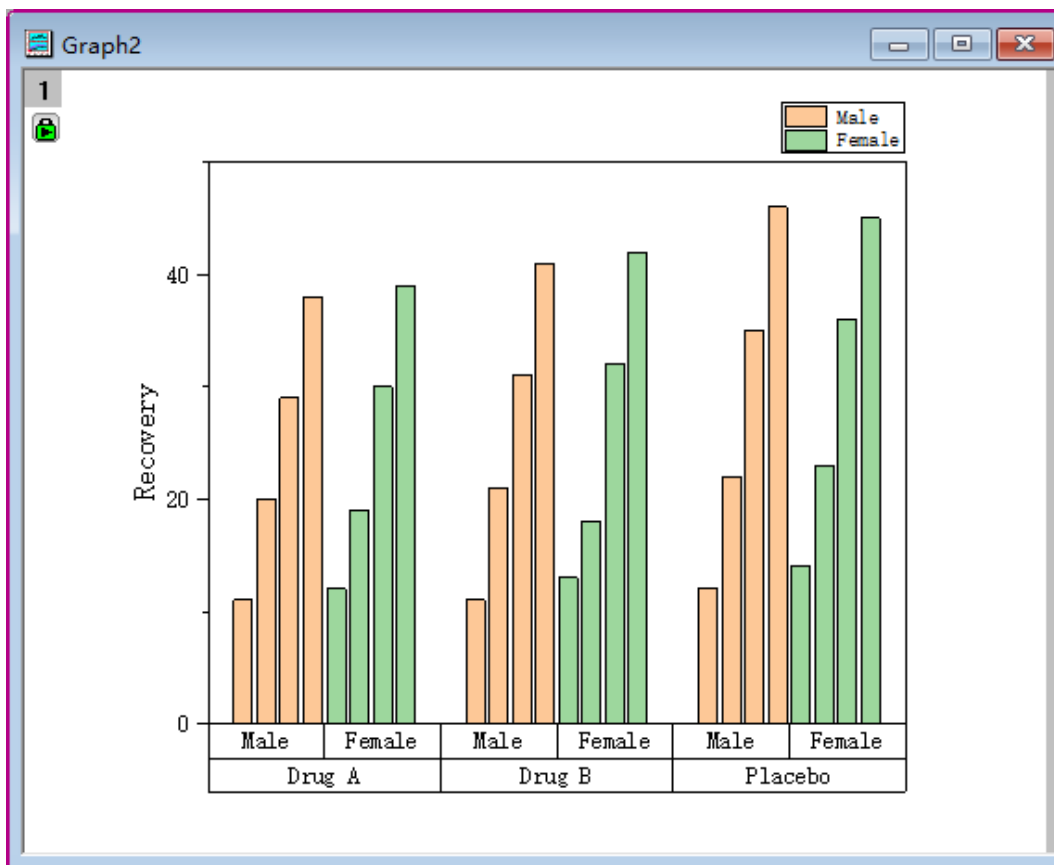
Grouped Column Plot



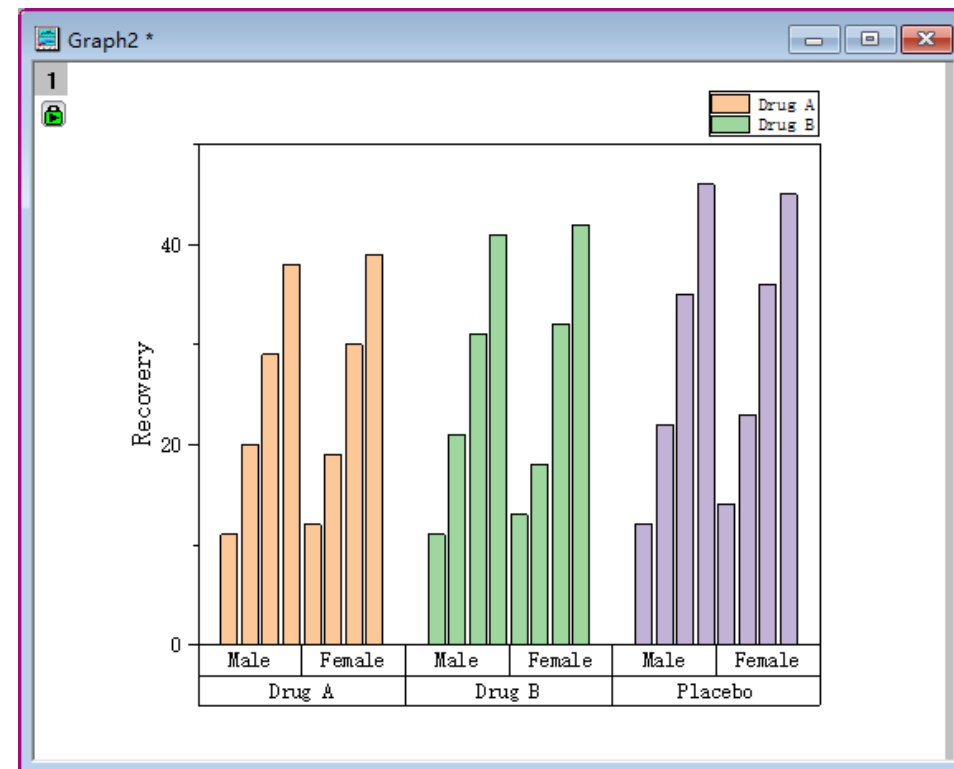
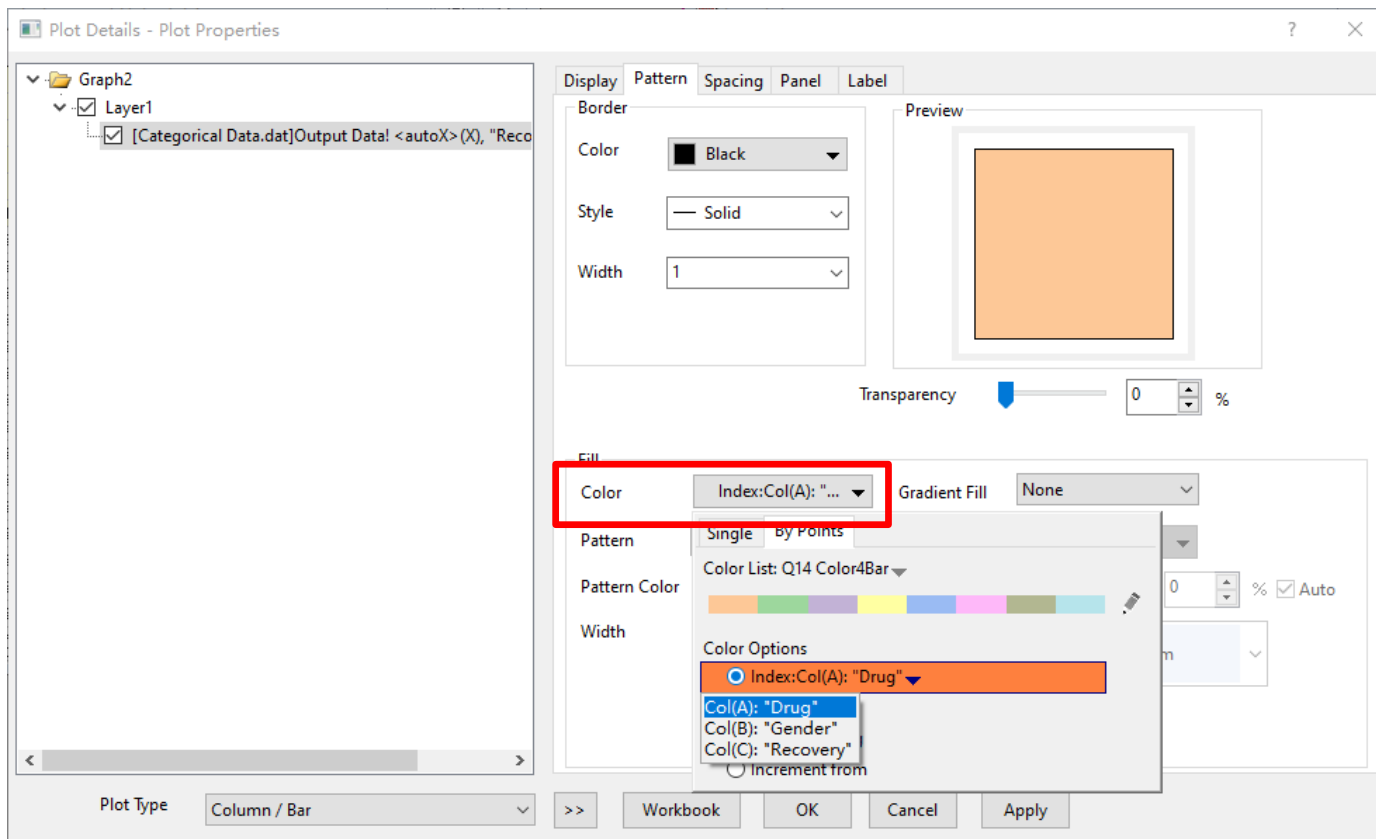
CategoricalD1 - Categorical Data.dat *

	A(Y)	B(Y)	C(Y)
Long Name	Drug	Gender	Recovery
Units			
Comments			
F(x)=			
Sparklines			
Categories	Unsorted	Unsorted	
1	Drug A	Male	11
2	Drug A	Male	20
3	Drug A	Male	29
4	Drug A	Male	38
5	Drug A	Female	12
6	Drug A	Female	19
7	Drug A	Female	30
8	Drug A	Female	39
9	Drug B	Male	11
10	Drug B	Male	21
11	Drug B	Male	31
12	Drug B	Male	41
13	Drug B	Female	13
14	Drug B	Female	18

Categorical Data | Output Data



Grouped Column Plot

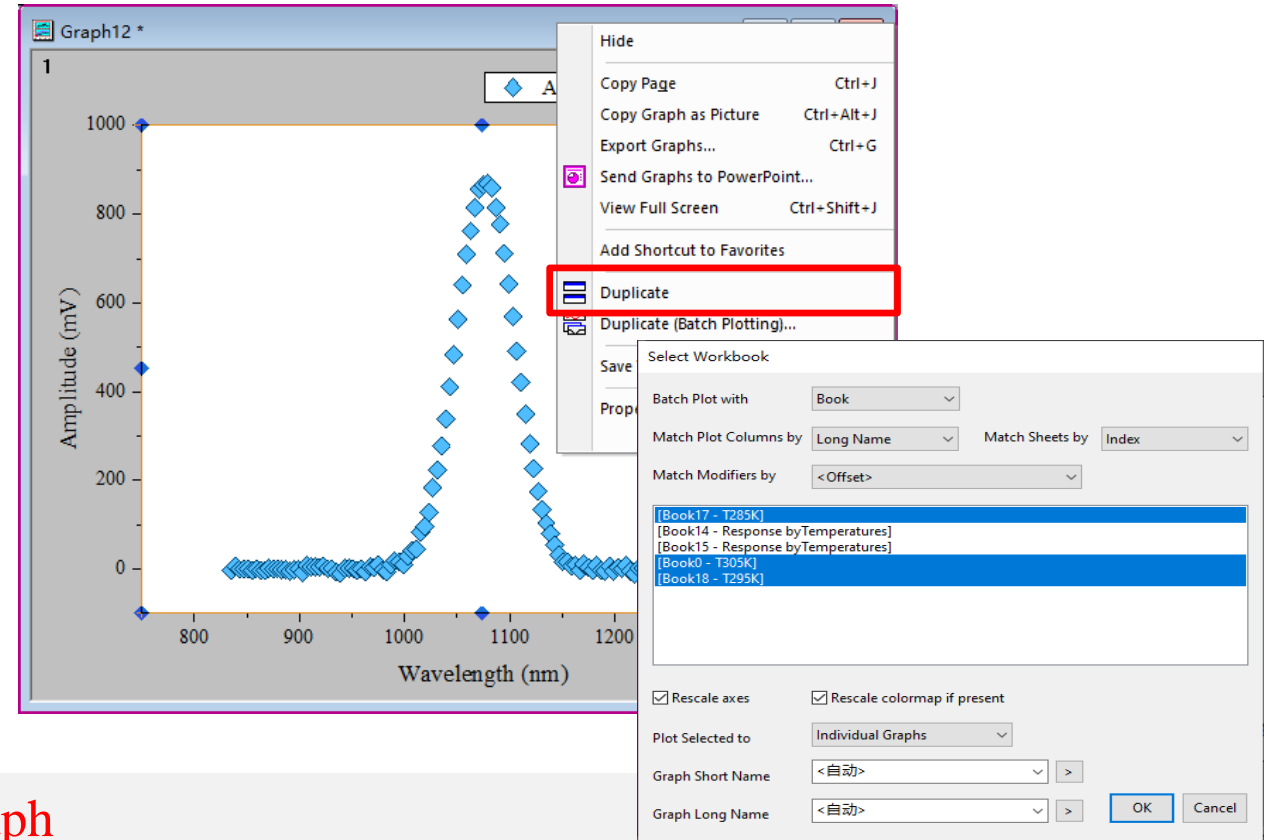
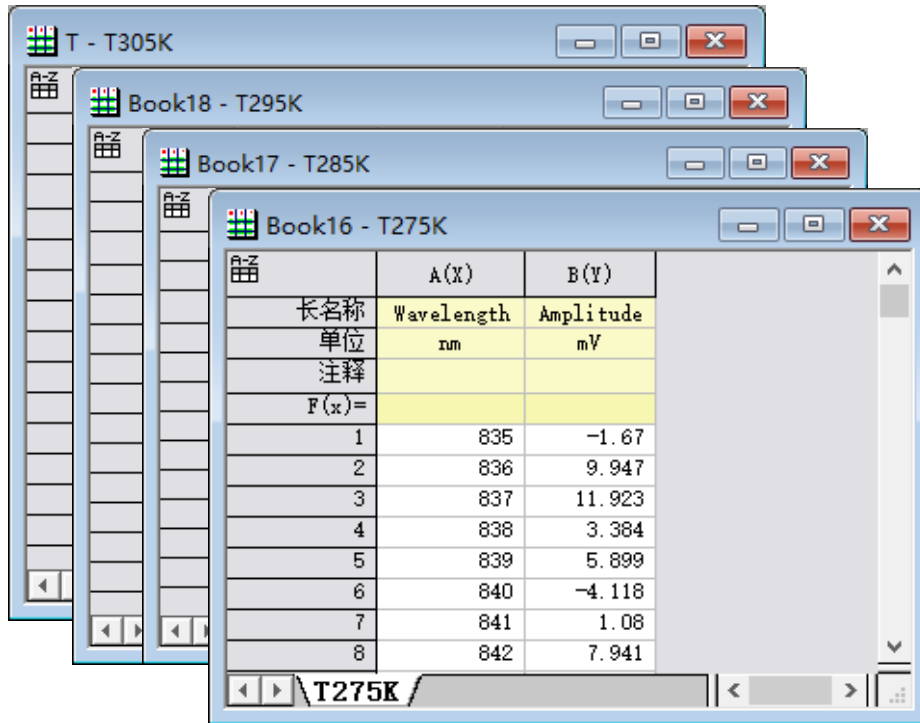


Scientific Graphing:

Batch Plotting



Duplicate (Batch Plotting)

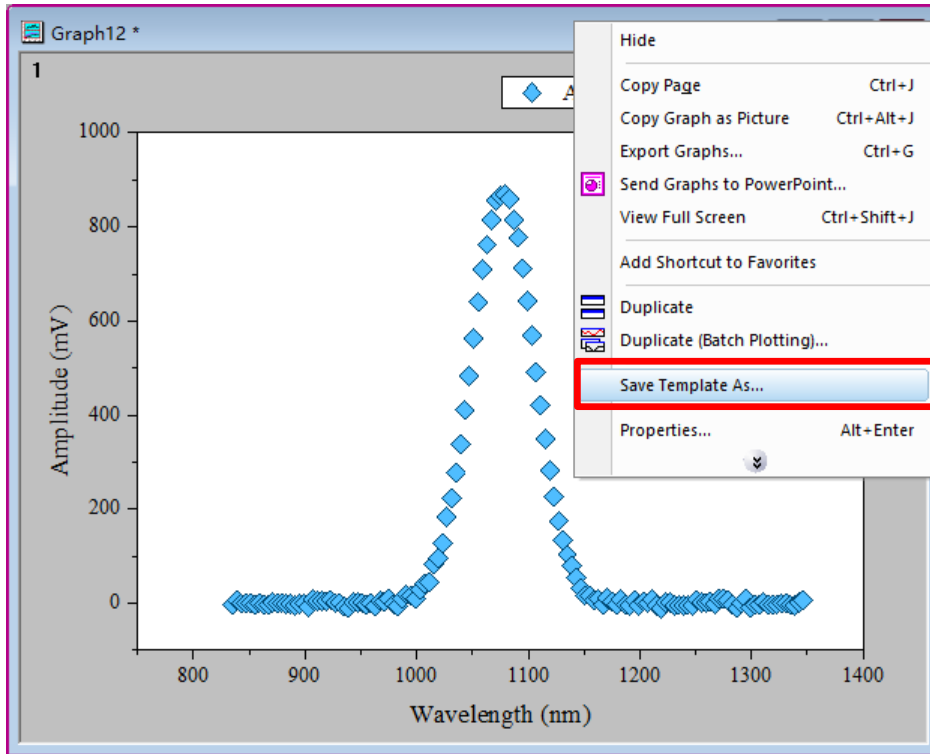


1. Select data, create and customize a graph
2. Right-click on the graph title bar, select **Duplicate (Batch Plotting)...**
3. Use the drop-down list **Batch Plot With** to switch the different source data to duplicate the current graph

Batch Plotting (User-Defined Template)



中国科学技术大学
University of Science and Technology of China



The screenshot shows a dialog box titled 'Utilities\File: template_saveas'. The main instruction is 'Save a graph, workbook or matrix window as a template'. The dialog contains several fields and options: 'Category' is set to 'UserDefined'; 'Template Name' is 'Amplitude'; 'File Type' is 'OTPU'; 'Template Description' is an empty text box; 'Preset Graph Short Name' and 'Preset Graph Long Name' are both set to '<自动>'; 'Mark as Cloneable Template' is unchecked; 'Match Modifiers by' is set to '<Offset>'; 'File Path' is 'C:\Users\zhang\Documents\OriginLab\User Files\'; 'Preview Image (Optional)' is an empty text box; and 'Allow System Theme & System Increment Lists to Override' is checked. A red rectangle highlights the 'Save Template As...' option from the previous screenshot, indicating the next step in the process.

1. Select data, create and customize a graph
2. Save the graph as a user-defined template (Right-click on the graph title bar, select **Save Template As...**)
3. Plot other data with same data structure into the saved custom template

What is Saved with the Graph Template?

Graph windows are created from graph template files. Origin ships with a large number of built-in graph templates (system templates). These templates are used to create all of Origin's 100+ graph types and they can be modified and saved, to preserve your custom settings.

A graph template do not store data. Rather, graph template files store important page and layer characteristics (page size, number of layers, scaling of text and drawing objects, etc.) and they also store data plot style information (plot type, plot colors, data labels, etc.).

Graph Theme



The screenshot displays the Graph software interface. The main window shows a graph titled "Graph15 - Duplicate with [Book17] *". The graph plots "Amplitude (mV)" on the y-axis (ranging from 0 to 1000) against "Wavelength (nm)" on the x-axis (ranging from 800 to 1400). The data points form a sharp peak around 950 nm. The graph is titled "Amplitude for T285K".

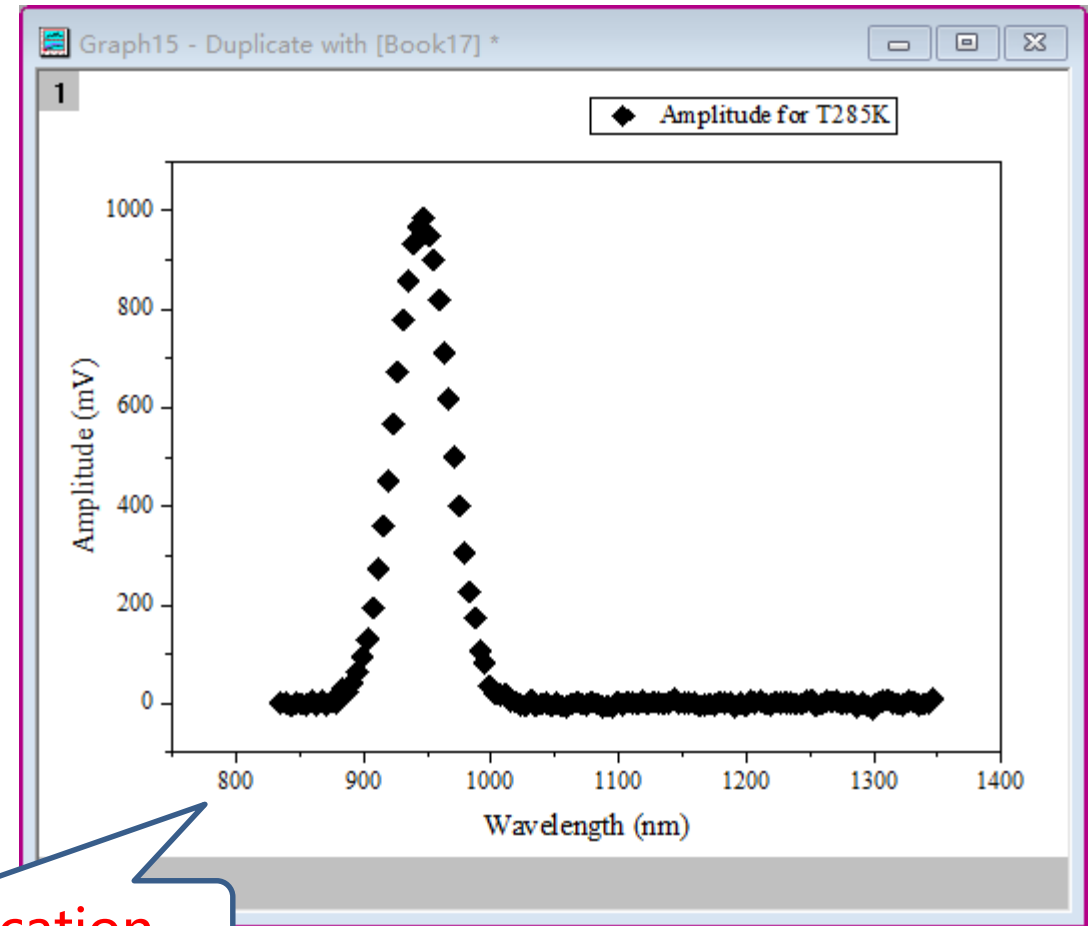
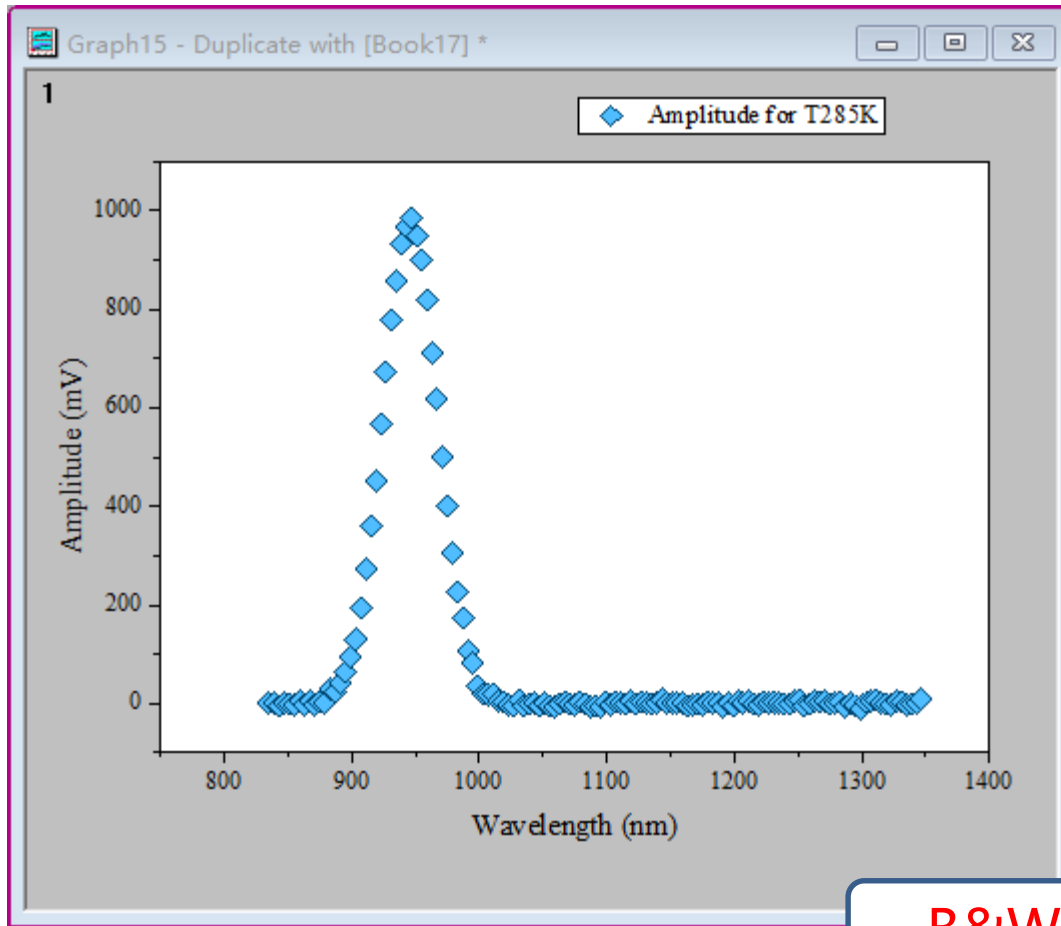
The "Theme Organizer" dialog box is open, showing a list of themes. The "Graph" tab is selected. The "Current system theme" is "Light Grids". The "Graph" tab is highlighted with a red box. The "Theme Organizer" menu item in the top menu bar is also highlighted with a red box.

The "Theme Organizer" dialog box contains the following table of themes:

Name	Size	Path	Date
All Axes On	2	System	2018/11/1 17:06
AntiAliasing	1	System	2018/11/1 17:06
B&W Publication	23	System	2018/11/1 17:06
Black on paper	10	System	2018/11/1 17:06
Box_Column Scatter	11	System	2019/8/13 09:29
Box_Connect Mean Line	3	System	2018/11/1 17:06
Box_Dashed Whisker Thick Median	8	System	2018/11/1 17:06
Box_Data in Line	4	System	2018/11/1 17:06
Box_Filled Diamond	1	System	2018/11/1 17:06
Box_HalfBox	5	System	2018/11/1 17:06
Box_HalfViolin	32	System	2018/11/1 17:06
Box_I-shaped	1	System	2018/11/1 17:06
Box_Independent Line Colors	10	System	2018/11/1 17:06
Box_Interval Plot	11	System	2018/11/1 17:06
Box_Mean Bar with SE	3	System	2018/11/1 17:06
Box_Violin	21	System	2018/11/1 17:06

The "Theme Organizer" dialog box also includes buttons for "Apply Now", "Undo Apply", and "Close".

Graph Theme

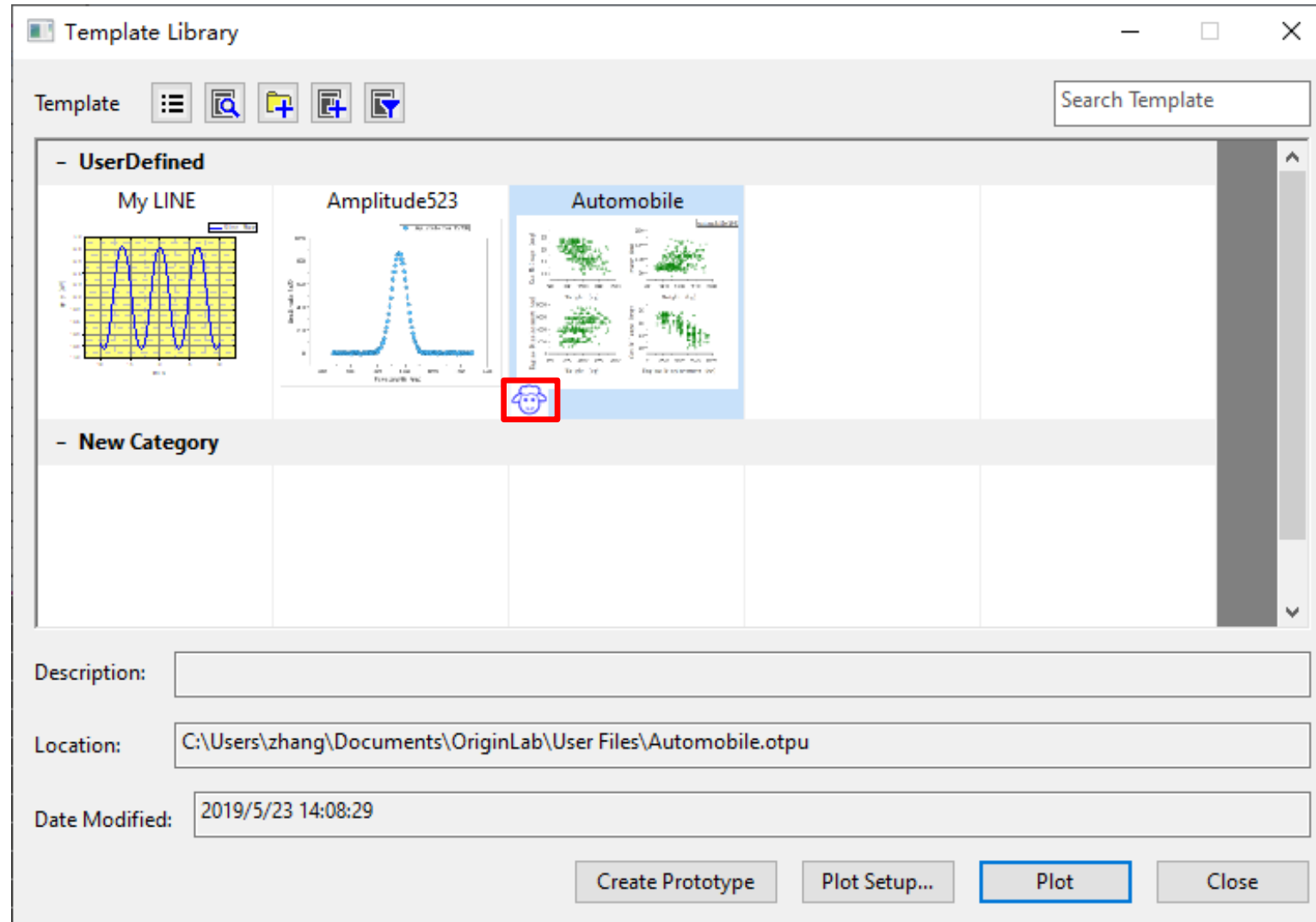


B&W Publication

Cloneable Template



中国科学技术大学
University of Science and Technology of China



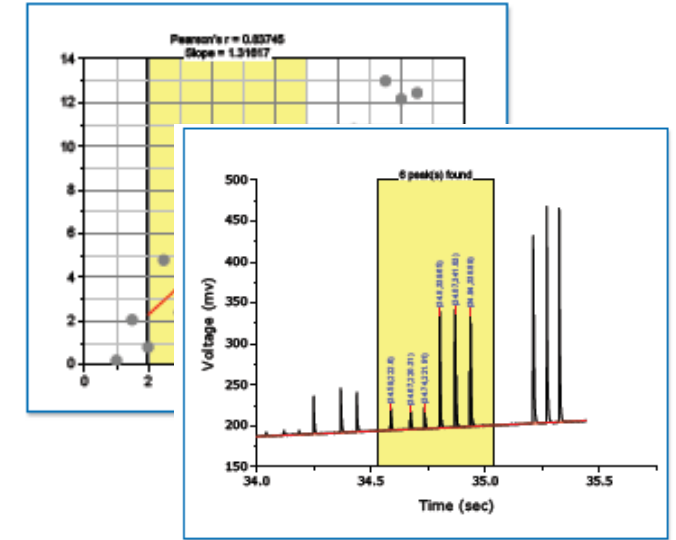
Data Analysis



- ① **Statistics**: Descriptive statistics, Multivariate Analysis, Survival Analysis ...
- ② **Mathematics**: Interpolate/Extrapolate, Differentiate, Integrate ...
- ③ **Fitting**: Linear Fit, Non Linear Curve Fit ...
- ④ **Signal Processing**: Smooth, FFT Filters ...
- ⑤ **Peaks and Baseline**: Integrate Peaks, Find Peaks, Fit Peaks ...

Origin offers several **Gadgets** for analysis of data plotted in a graph. They are specialized, **interactive tools** designed for generating quick results. Gadgets are accessible from the Gadgets menu when a graph is active.

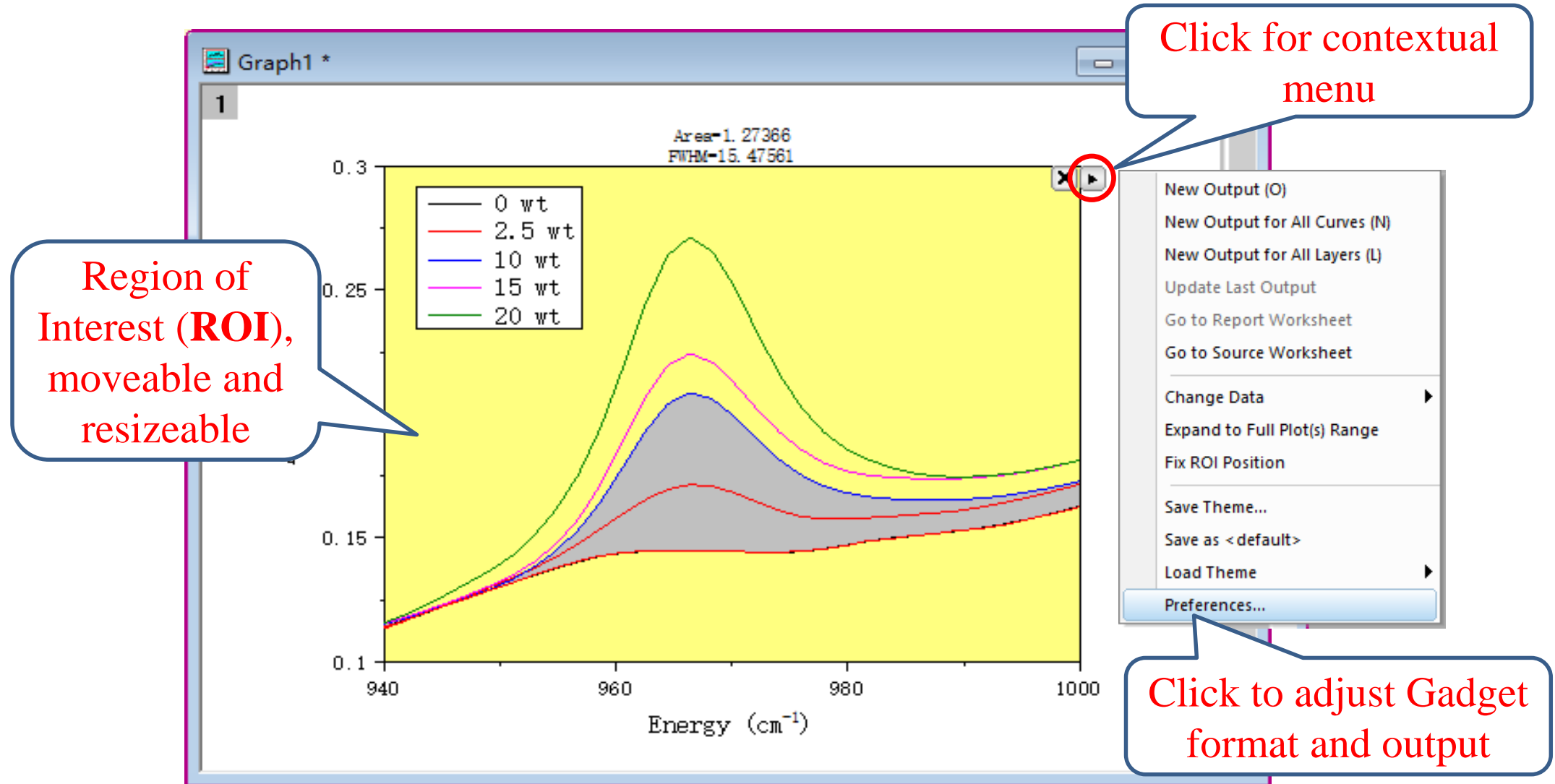
- ◆ Drag to modify the **ROI** directly on the graph
- ◆ Display the results instantly on top of the ROI
- ◆ Output the results for all curves within the graph
- ◆ Save the settings to a theme for later use



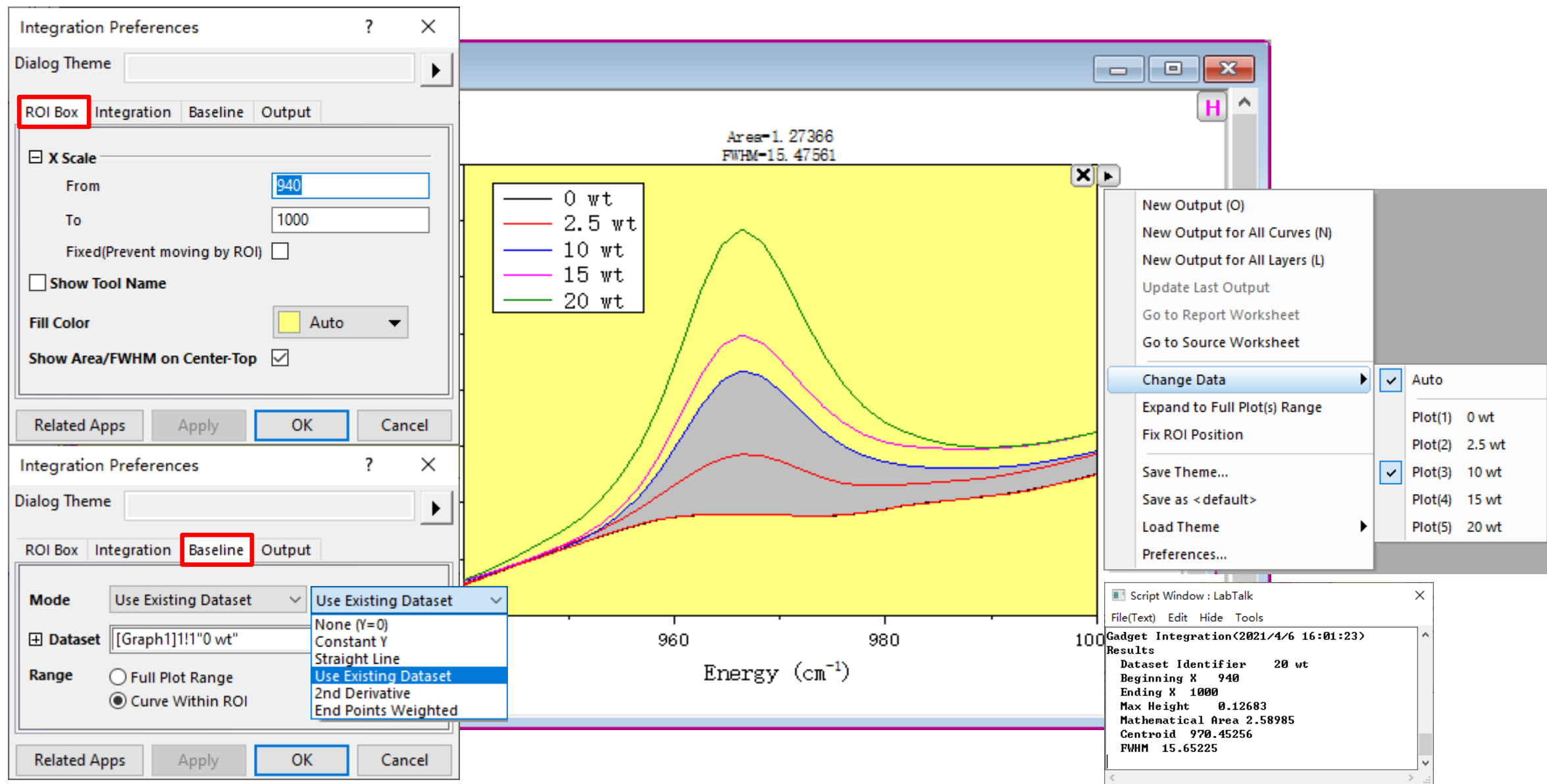
The Integrate Gadget



中国科学技术大学
University of Science and Technology of China



The Integrate Gadget



Linear Fit with Outliers



The screenshot displays the OriginLab software interface. The 'Analysis' menu is open, showing the 'Fitting' submenu with 'Linear Fit' highlighted. The 'Linear Fit' dialog box is open, showing the 'Recalculate' dropdown set to 'Auto'. A graph window titled 'Graph3' shows a scatter plot of data points with a linear fit line. The 'Outlier - Outlier.dat' table is visible in the background.

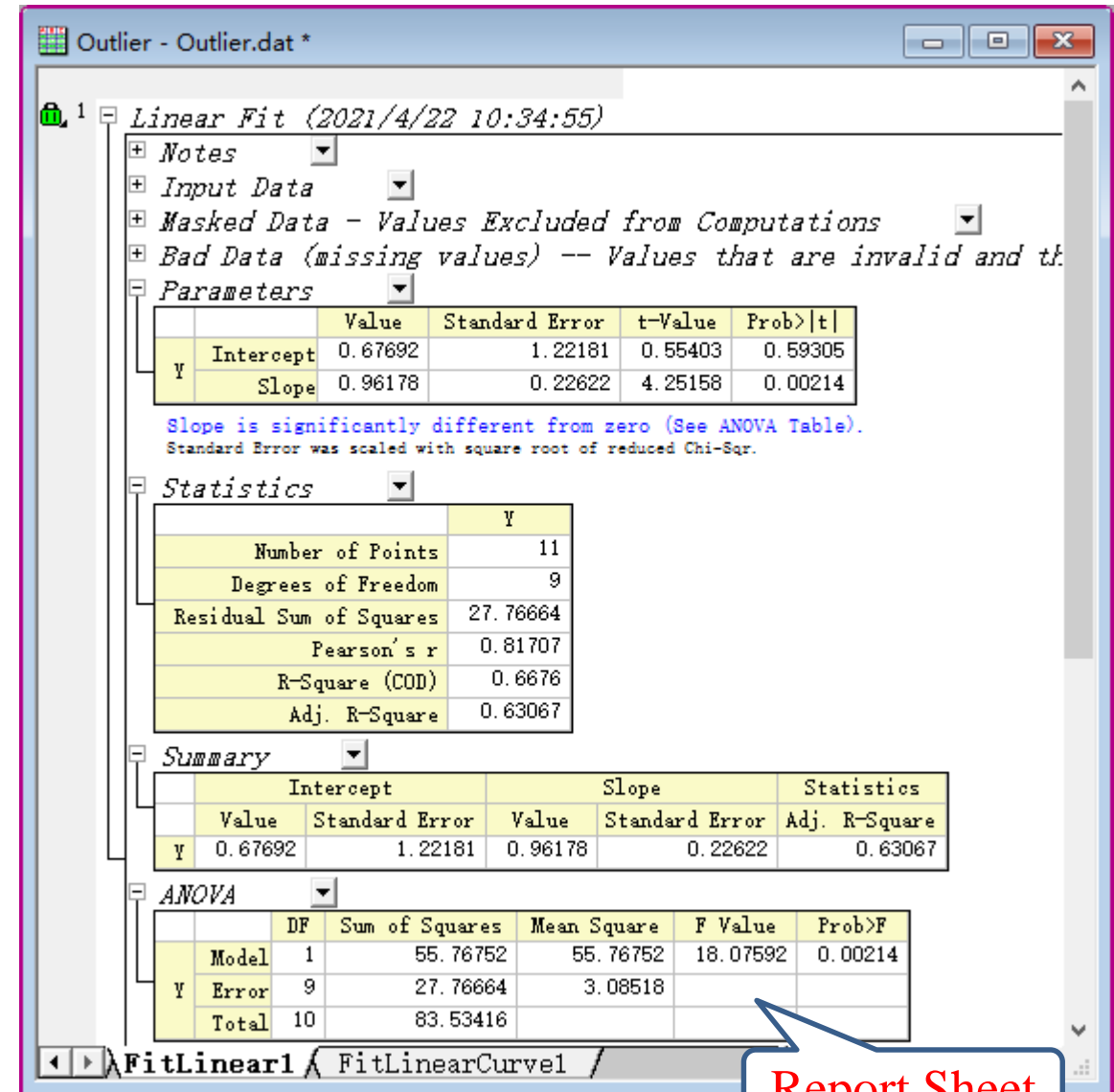
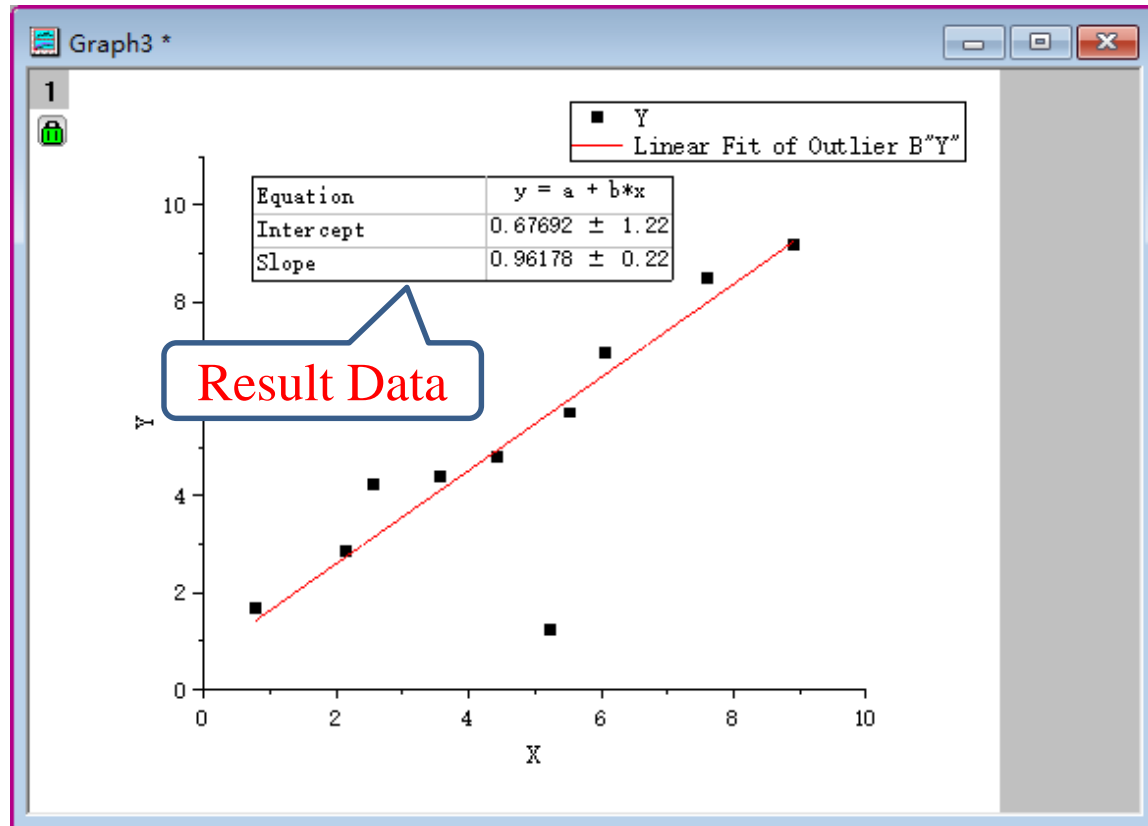
Linear Fit Dialog Box Settings:

- Dialog Theme: [Default]
- Perform Linear Fitting: [Checked]
- Recalculate: Auto
- Input: [Default]
- Fit Control: [Default]
- Quantities: [Default]
- Residual Analysis: [Default]
- Output: [Default]
- Fitted Curves Plot: [Default]
- Find X/Y: [Default]
- Residual Plots: [Default]

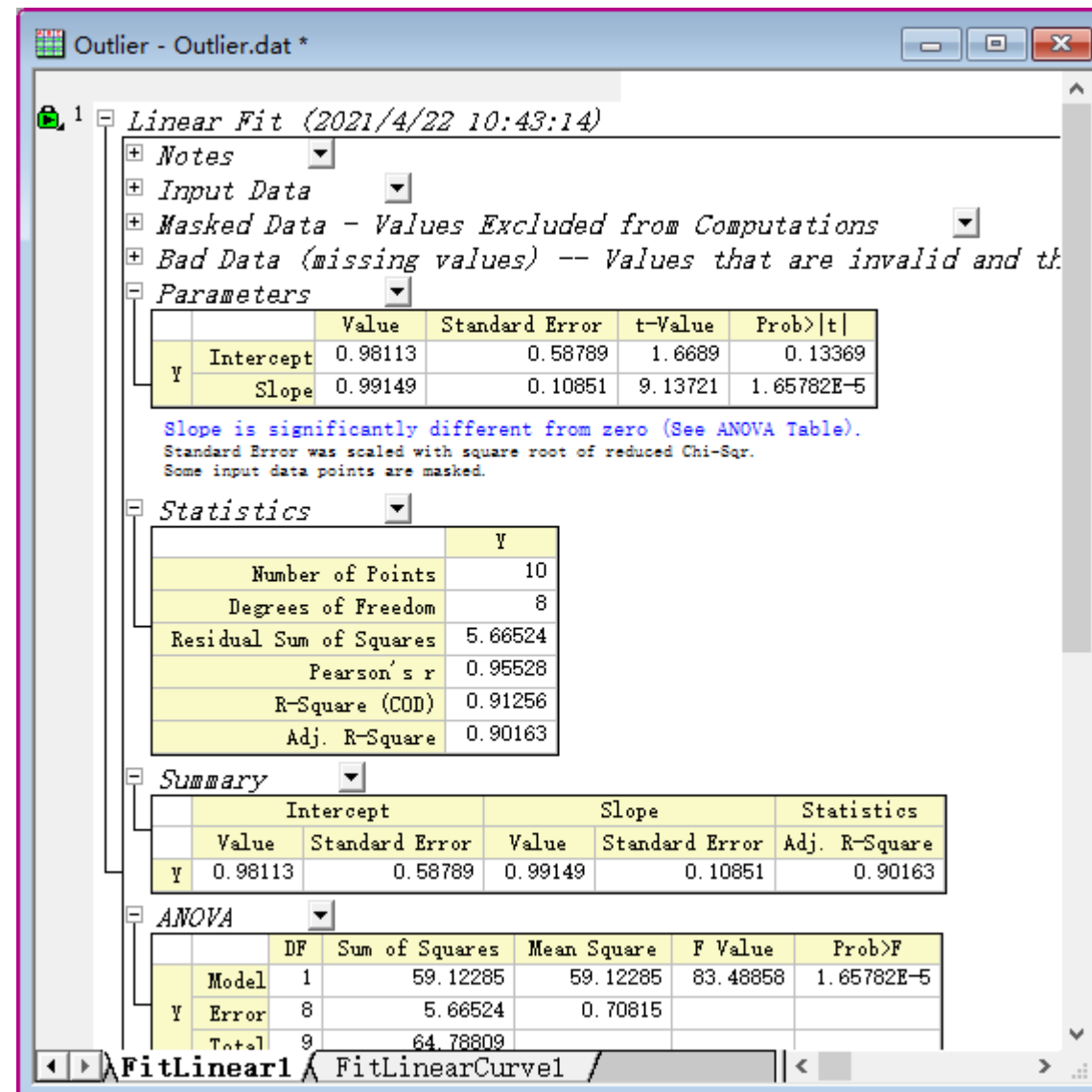
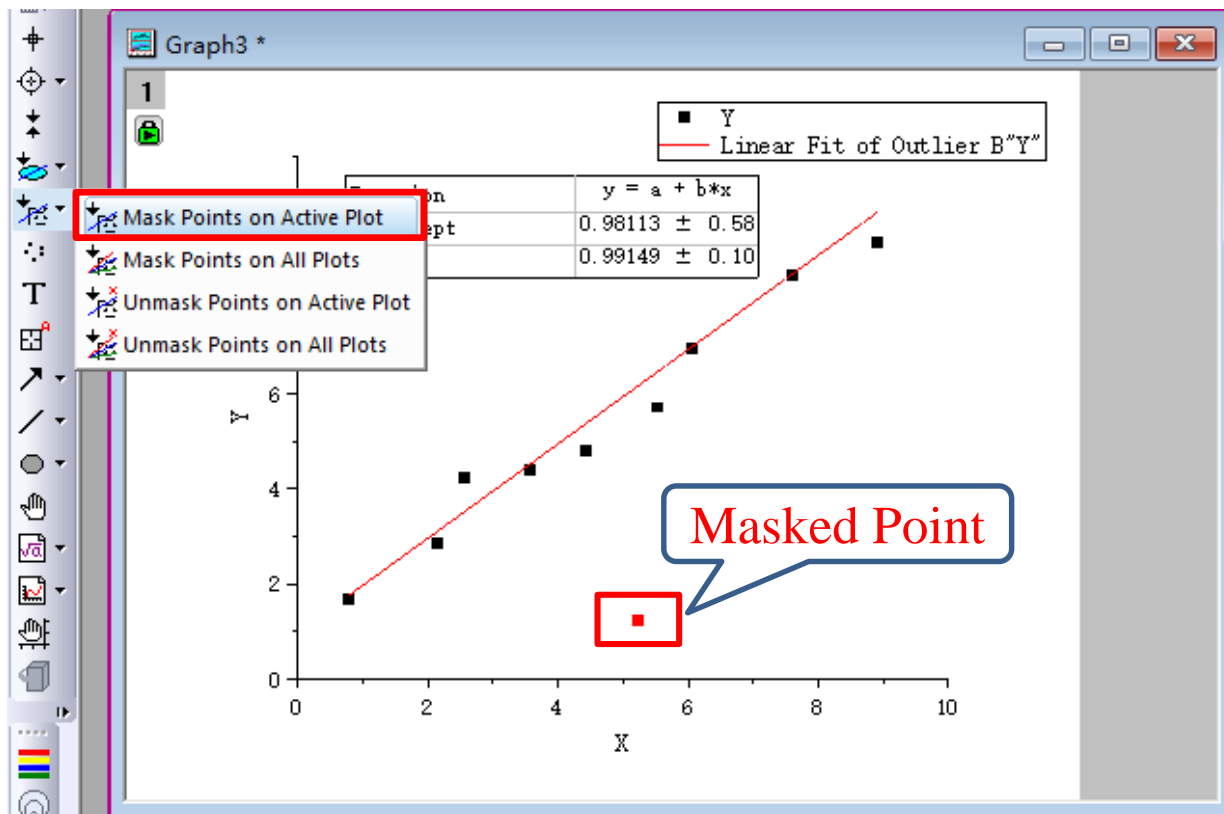
Graph Data (Approximate):

X	Y
1	1.5
2	2.5
3	4.0
4	4.5
5	4.8
6	7.0
7	8.5
8	9.0
9	9.5

Linear Fit with Outliers



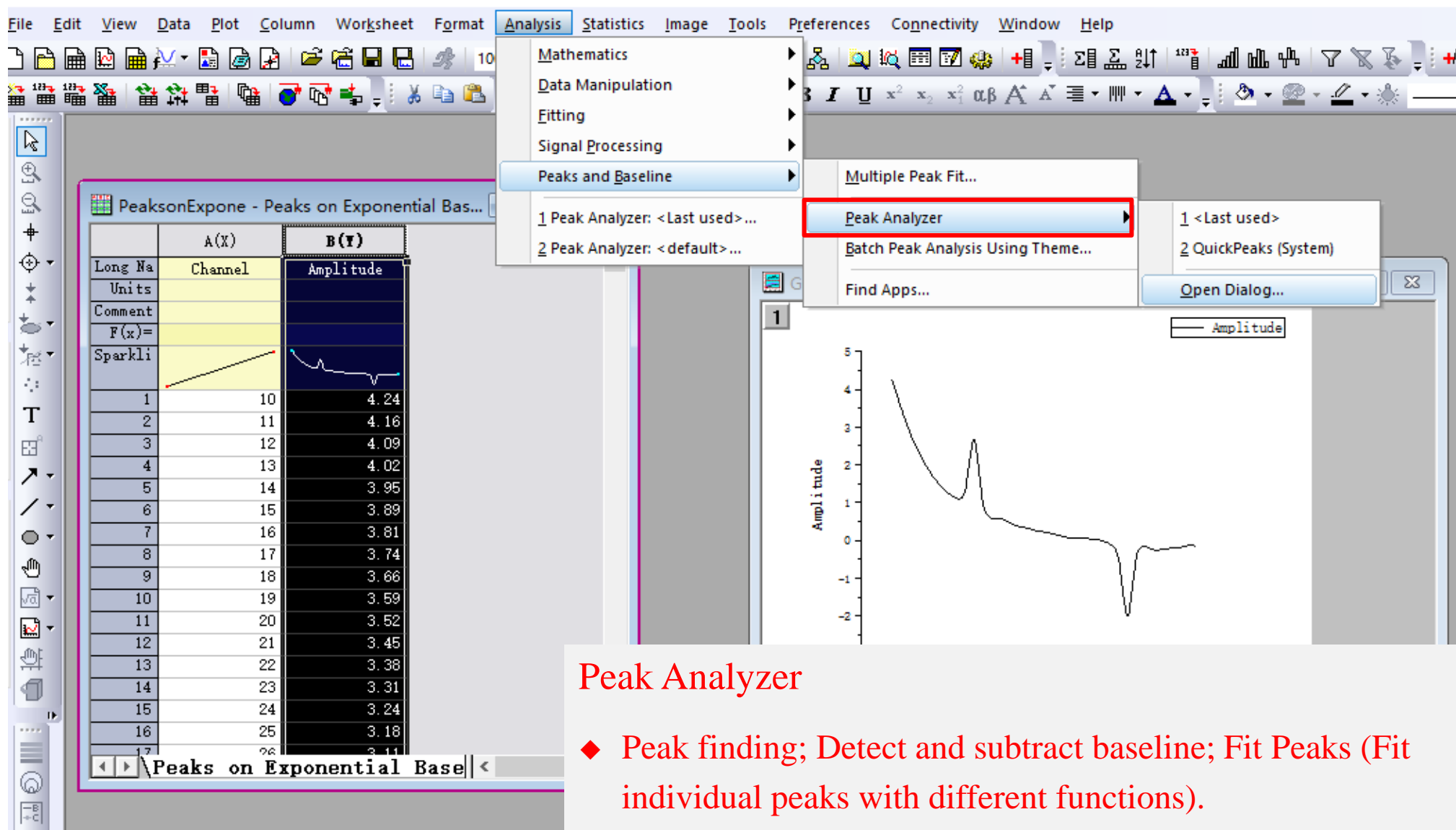
Linear Fit with Outliers



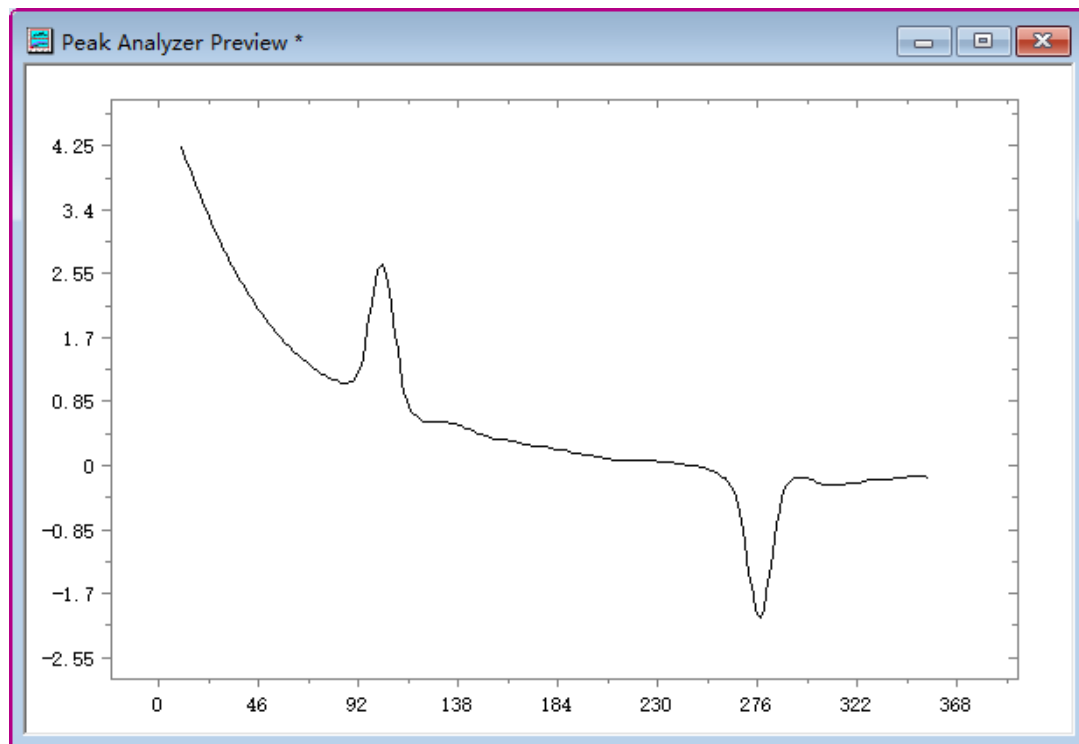
Peak Analyzer



中国科学技术大学
University of Science and Technology of China

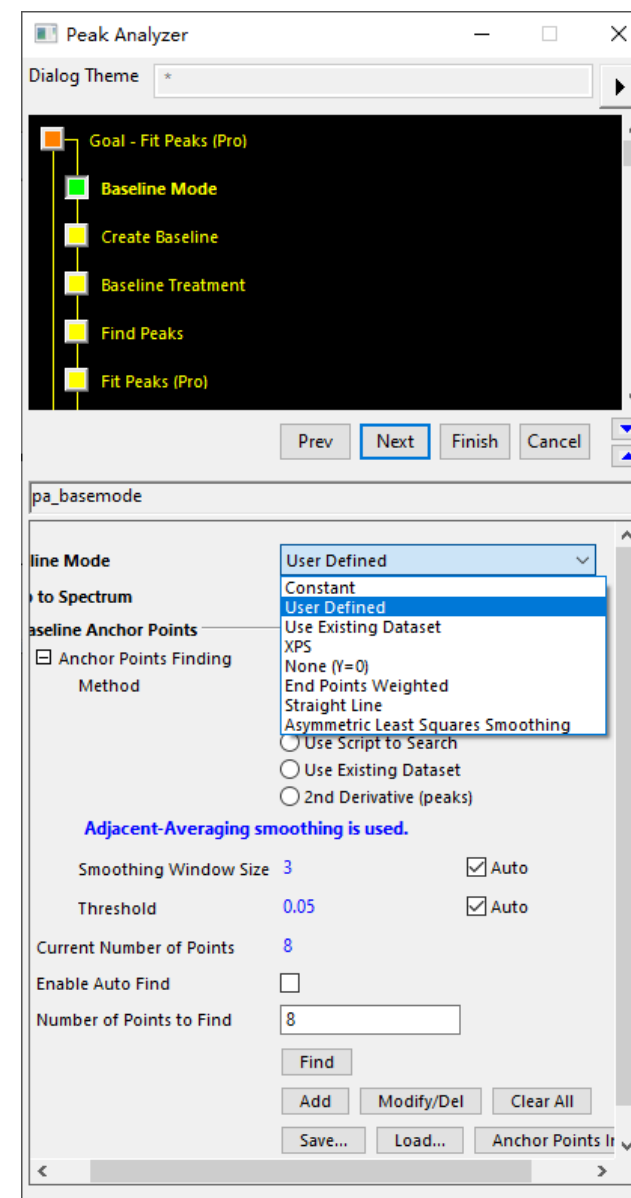
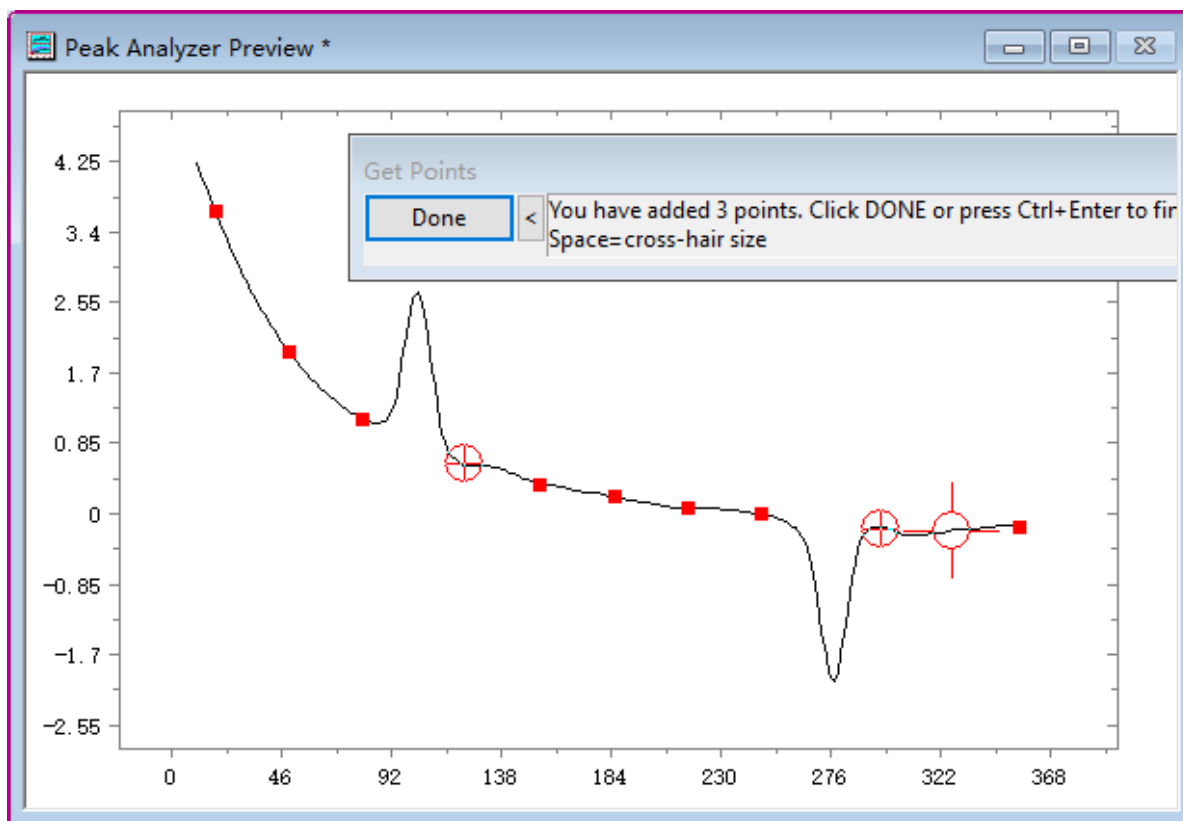


Fit Peaks

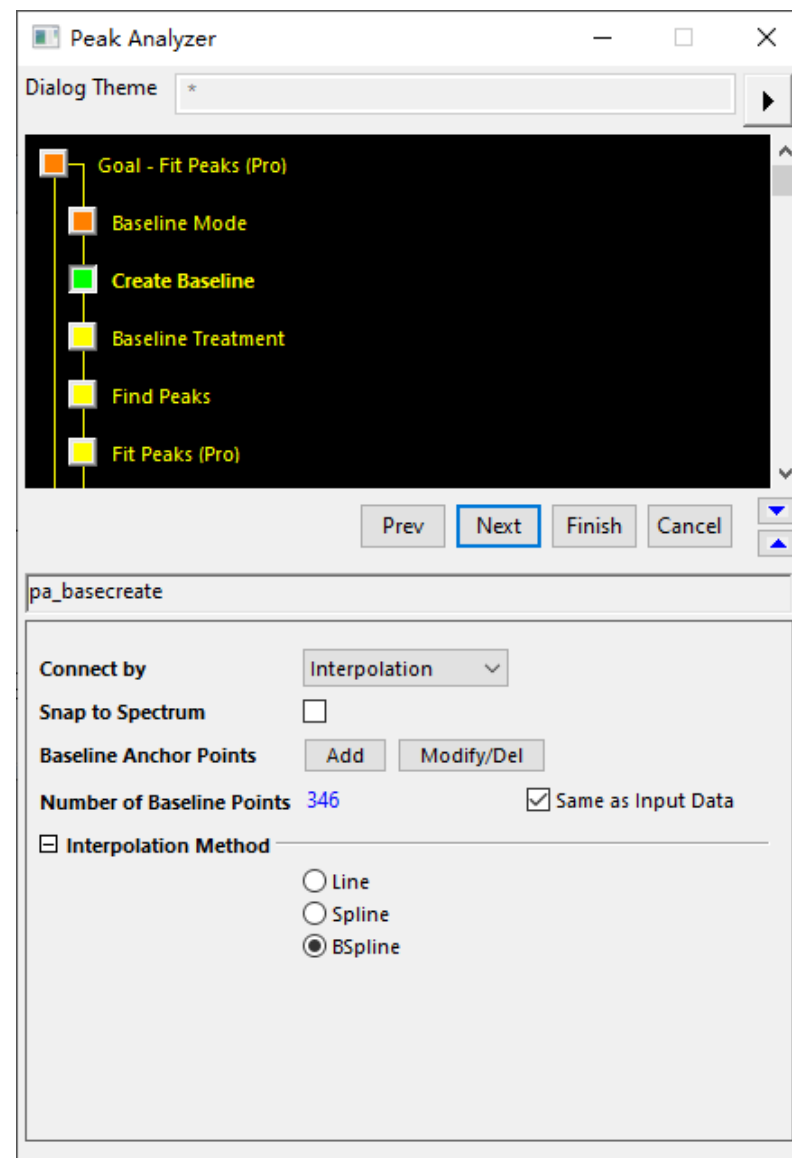
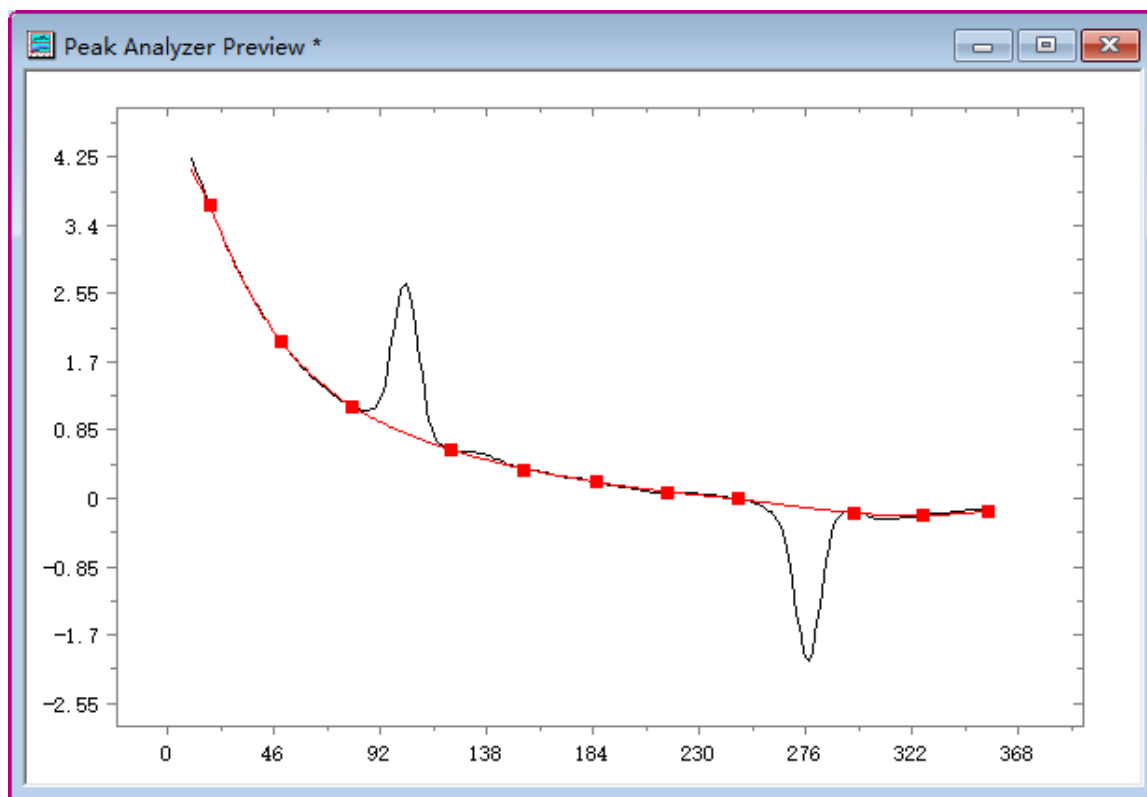


The figure shows the 'Peak Analyzer' dialog box. It has a 'Dialog Theme' dropdown menu. Below it is a workflow diagram with steps: Goal - Fit Peaks (Pro), Baseline Mode, Baseline Treatment, Find Peaks, Fit Peaks (Pro), and Finish. The 'Next' button is highlighted. Below the workflow diagram are buttons for 'Prev', 'Next', 'Finish', and 'Cancel'. Below these buttons is a text field labeled 'pa_goal' with the value 'pa_goal'. Below that is a section titled 'Select spectrum data and Goal'. It contains a 'Recalculate' dropdown menu set to 'Auto'. Below that is a section titled 'Define a baseline, find and fit peaks'. It contains a 'Goal' section with radio buttons for 'Integrate Peaks', 'Create Baseline', 'Subtract Baseline', 'Find Peaks', and 'Fit Peaks (Pro)'. The 'Fit Peaks (Pro)' option is selected. Below that is an 'Input' section with a text field containing the formula 'Baseline'!(A"Channel",B"Amplitude") and a right arrow button.

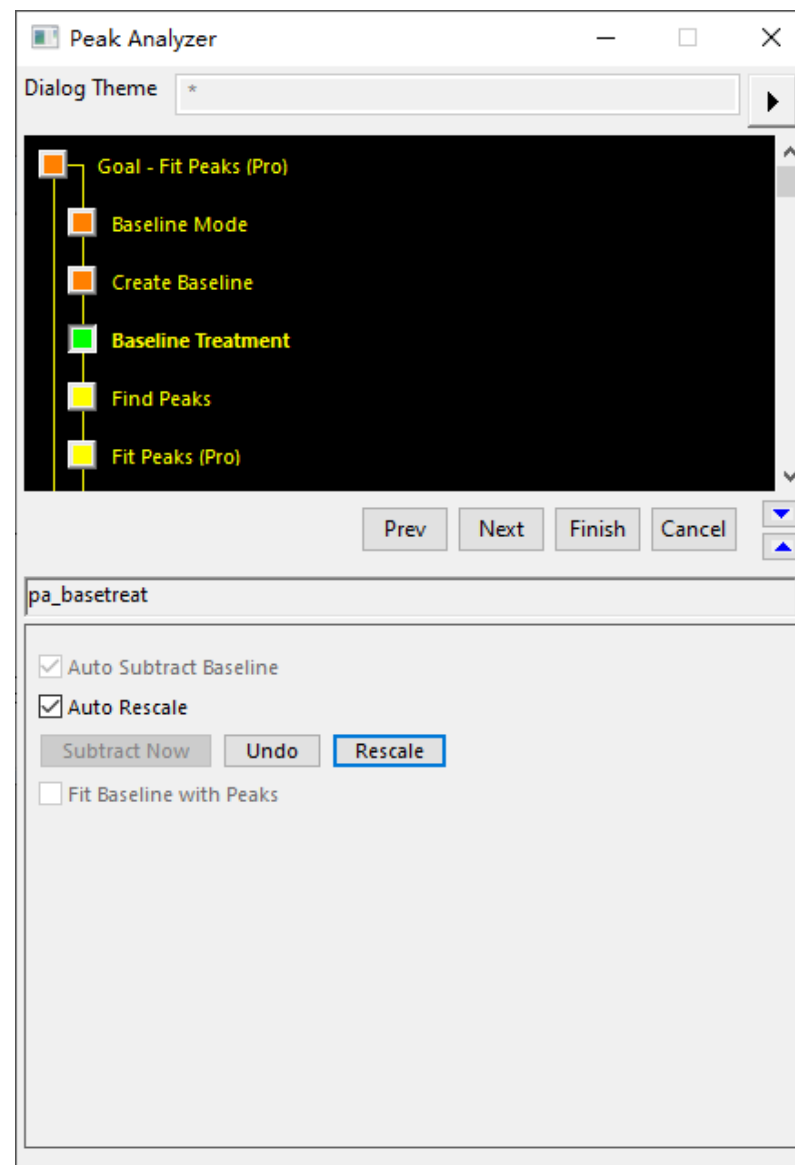
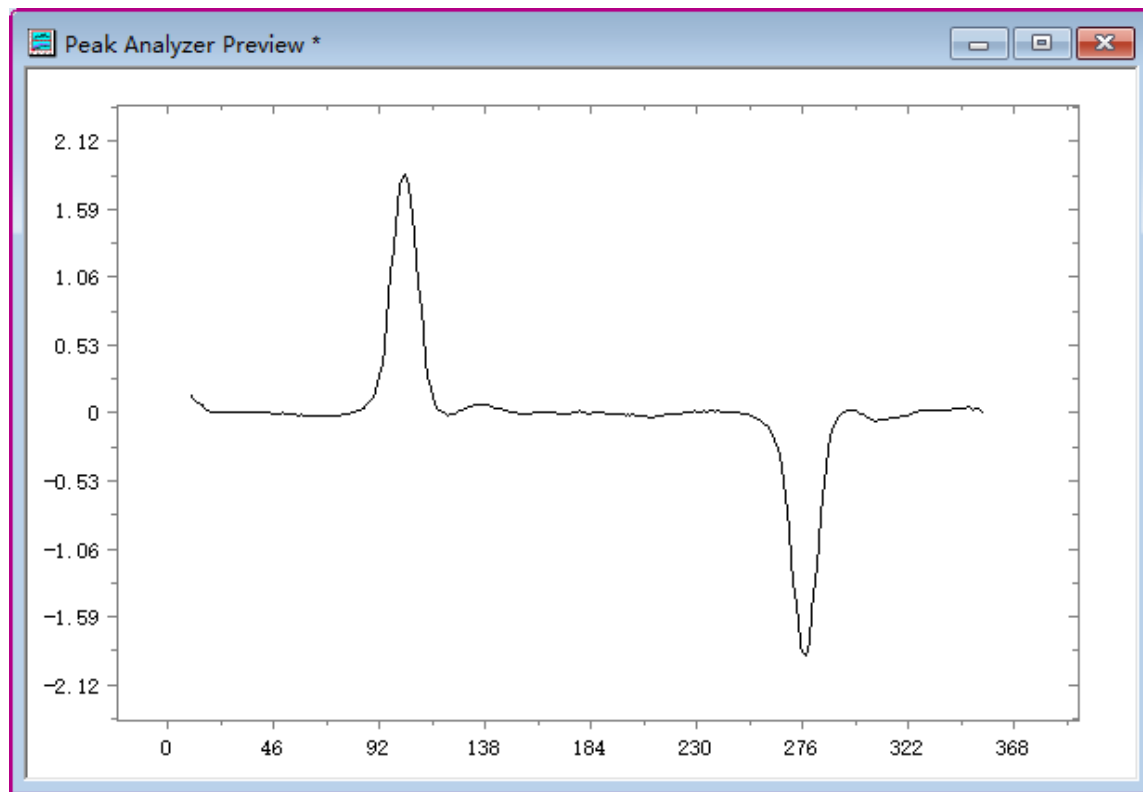
Fit Peaks



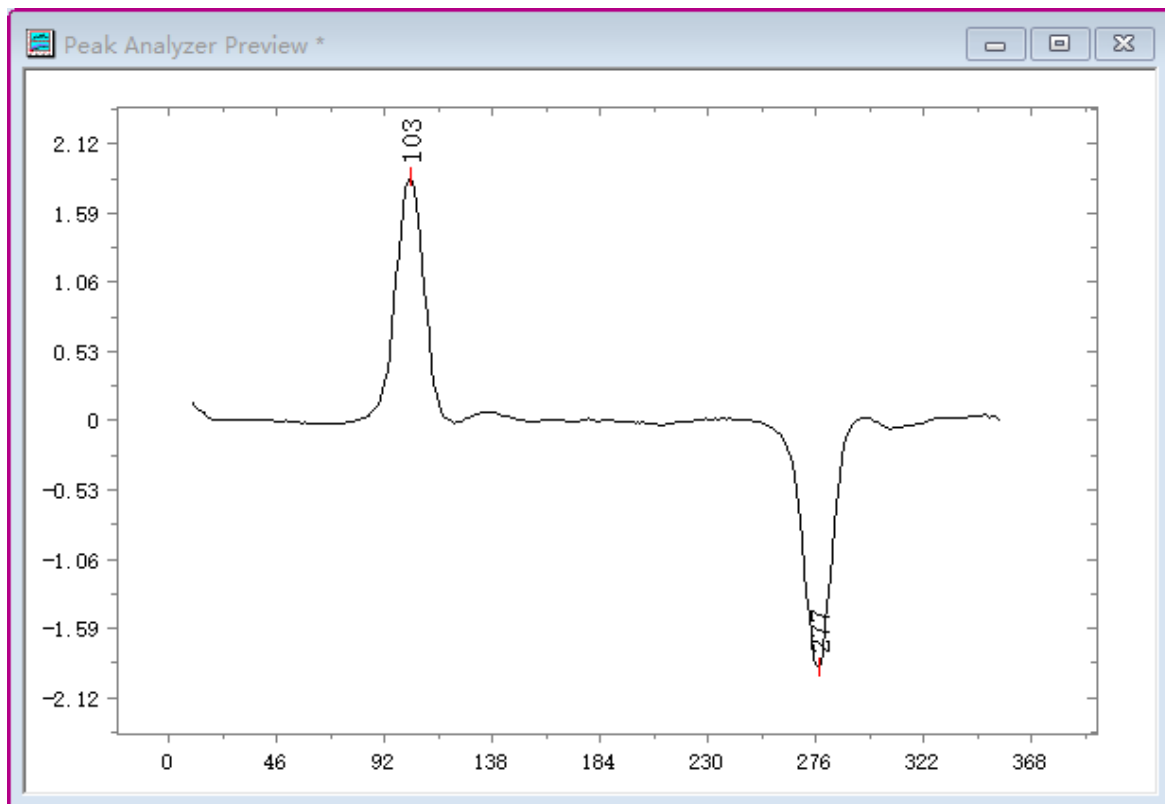
Fit Peaks



Fit Peaks



Fit Peaks

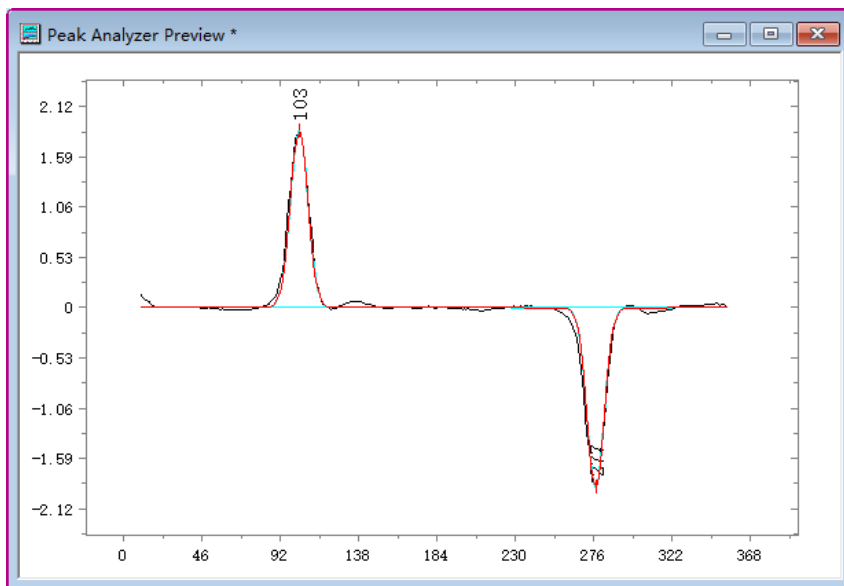


The figure shows the 'Peak Analyzer' dialog box. It has a 'Dialog Theme' dropdown menu. Below it is a list of steps: Goal - Fit Peaks (Pro), Baseline Mode, Create Baseline, Baseline Treatment, Find Peaks, and Fit Peaks (Pro). The 'Find Peaks' step is highlighted in green. Below the list are buttons for 'Prev', 'Next', 'Finish', and 'Cancel'. The 'Next' button is highlighted in blue. Below the buttons is a section for 'pa_peaks' with a 'Current Number of Peaks' set to 2. There is a checkbox for 'Enable Auto Find' which is checked. Below this are buttons for 'Find', 'Add', 'Modify/Del', 'Clear All', 'Save...', 'Load...', and 'Peaks Info...'. There is a checkbox for 'Snap to Spectrum' which is unchecked. Below this is a section for 'Peak Finding Settings' with a checkbox for 'Show 2nd Derivative' which is unchecked, a 'Smoothing Window Size' set to 0, a checkbox for 'Auto' which is unchecked, a 'Direction' dropdown menu set to 'Both', a 'Method' dropdown menu set to 'Local Maximum', and a 'Local Points' set to 2. There is a section for 'Peak Filtering' which is currently empty.

Fit Peaks



中国科学技术大学
University of Science and Technology of China



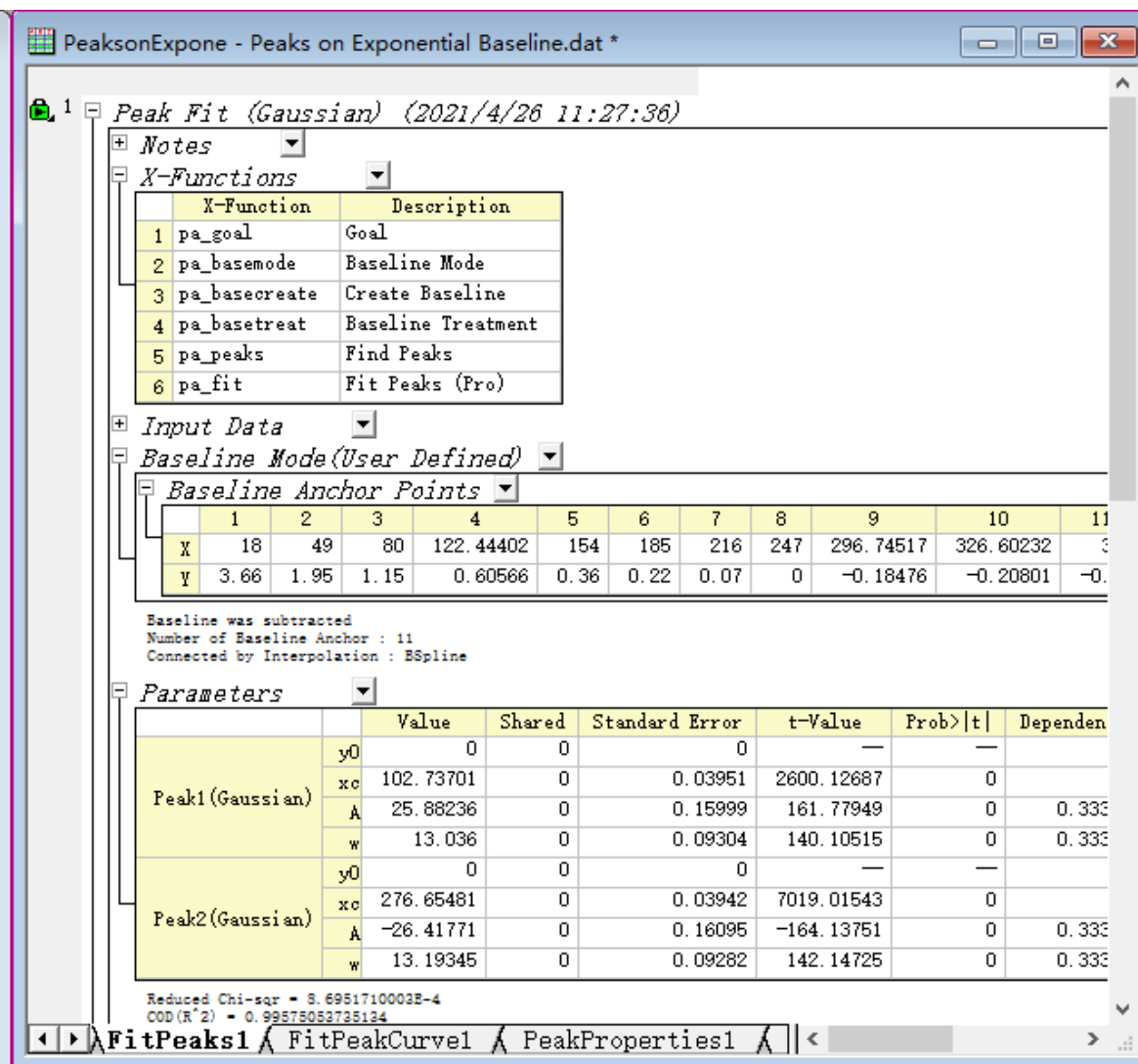
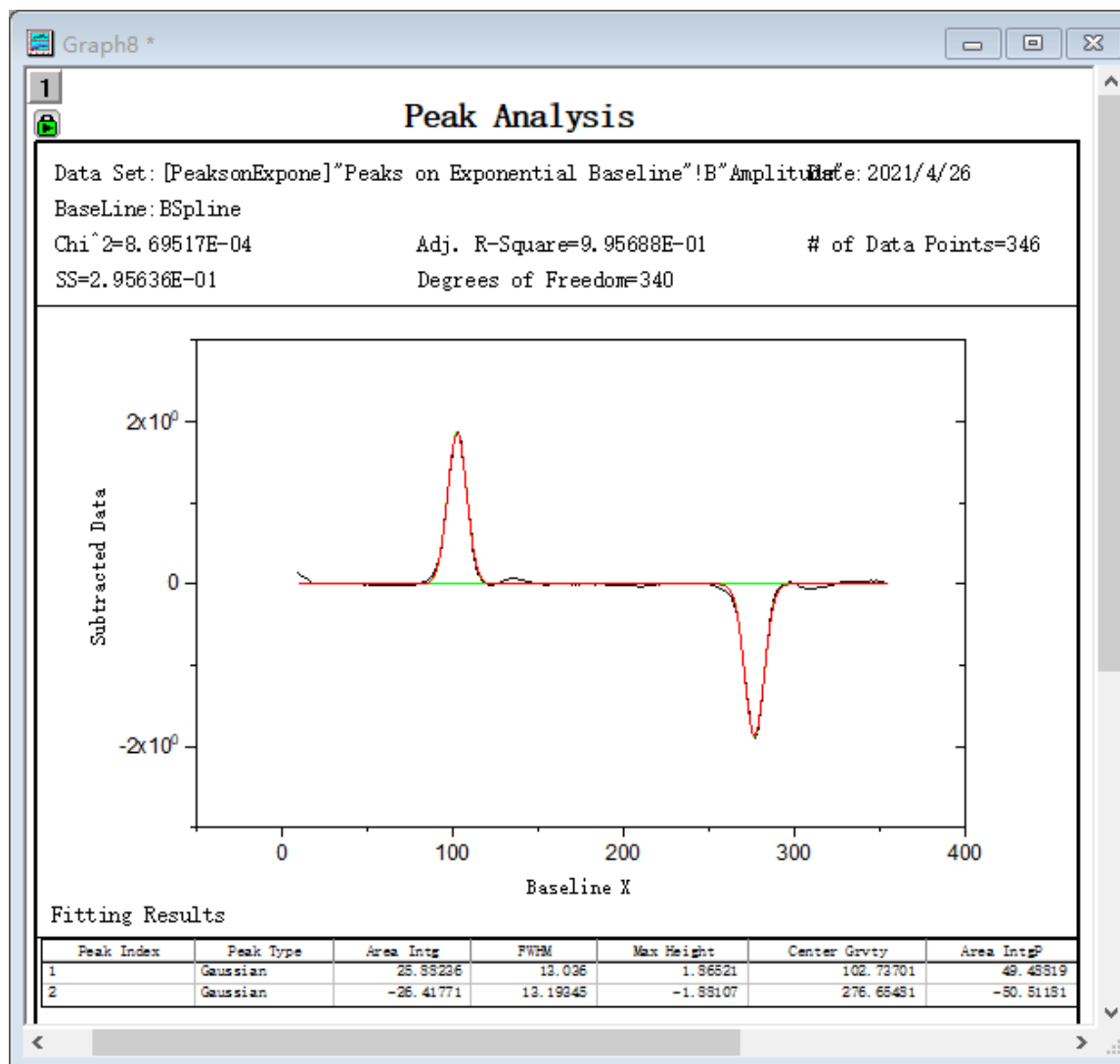
The Peak Fit Parameters window displays a table of fit parameters. The table has columns for NO., Peak Type, Param, Meaning, Share, Fixed, Value, Error, Dependency, Lower Conf Limits, and Upper Conf Limits. The parameters are for a Gaussian fit.

NO.	Peak Type	Param	Meaning	Share	Fixed	Value	Error	Dependency	Lower Conf Limits	Upper Conf Limits
0	Gaussian	y0	base	0	<input checked="" type="checkbox"/>	0	--	--	--	--
1	Gaussian	xc_1	center	0	<input type="checkbox"/>	103	--	--	--	--
1	Gaussian	A 1	area	0	<input type="checkbox"/>	23.97272	--	--	--	--

Buttons: OK, Hide...

The Peak Analyzer dialog box shows the 'Fit Peaks (Pro)' step. The 'Goal - Fit Peaks (Pro)' section is active. The 'Snap to Spectrum' checkbox is unchecked. The 'Peaks' section has 'Add' and 'Modify/Del' buttons. The 'Weight' section has a 'Method' dropdown set to 'No Weighting'. The 'Show Residuals' and 'Show 2nd Derivative' checkboxes are unchecked. The 'Result' section has 'Output', 'Configure Report', and 'Configure Graph' buttons. The 'Generate Report from Current Fitting Result' checkbox is unchecked. Buttons: Prev, Next, Finish, Cancel, Fit Control, Fit.

Fit Peaks



Learning Resources



	Context	URL/Menu
Learning Center	<ul style="list-style-type: none">◆ Graph Samples & Analysis Samples◆ Learning Resources (tutorials, videos, blog, etc.)	Menu: Help-Learning Center or F11
Help Center	<ul style="list-style-type: none">◆ List of all kinds of learning resources◆ Installation, Licensing, etc.	originlab.com/HelpCenter
Documentation	<ul style="list-style-type: none">◆ User Guide, Tutorials, Quick Help, etc.	originlab.com/doc
Video Tutorials	<ul style="list-style-type: none">◆ Introduction of Origin's different features, currently 200+ short videos	originlab.com/Videos
Online Webinars	<ul style="list-style-type: none">◆ Watch and learn from recorded webinars	originlab.com/Webinars
Graph Gallery	<ul style="list-style-type: none">◆ View typical graph examples by category◆ Download OPJ file for further learning	originlab.com/GraphGallery
User Case Studies	<ul style="list-style-type: none">◆ Provide with ideas and insights on how to use Origin efficiently	originlab.com/CaseStudies
User Forum	<ul style="list-style-type: none">◆ Provide a space for users to share and discuss ideas and questions related to Origin	originlab.com/Forum

Support Resources



Video Tutorials



Origin Blog



FAQs



User Forums



Apps



Graph Gallery



User Case Studies



Documentation and
Tutorials

- Newsletter
- Training Webinar

- Release Notes
- Documentation (PDF)

"Origin is an extremely powerful software package and their technical support has been very responsive. As a new Origin user it has reduced my learning curve tremendously. Between the online videos and rapid replies to my e-mails I have been extremely pleased."

Installation

- Get Started with Your Package
- Change Installed Serial Number
- Direct Install
- Multi-user Deployment
- Run Origin on a Mac
- System Requirements
- OS Compatibility by Version
- Apply Service Release

Licensing

- Convert Demo to Product
- License/System Transfer Request

Node Locked

License Activation/Deactivation:

- Single-user
- Multi-user

Tips for Administrators

Concurrent Licensing

- Complete License Guide
- Update License After Maintenance Renewal
- Update License After Purchasing Additional Users

Contact Support

OriginLab Corporate Headquarters

1-800-969-7720 (US & Canada)

1-413-586-2013



[Products ▾](#)[Purchase ▾](#)[Support ▾](#)[Communities ▾](#)[About Us ▾](#)[All Books ▶](#)[All Books ▾](#)[Search](#)[User Guide](#)[Tutorials](#)[Quick Help](#)[Origin Help](#)[X-Function](#)[Origin C](#)

Origin/OriginPro Videos

Search...



All

General

[General - Overviews](#)[General - Origin Workspace](#)[General - Apps in Origin](#)[General - Installing and Licensing](#)[General - Old Version Highlights](#)

Importing Data

[Importing Data - General](#)[Importing Data - Data Connectors](#)[Importing Data - Database](#)[Importing Data - Digitizing Image](#)

Graphing

Graphing - Graph Types

[Graphing - Customizing Graphs](#)[Graphing - Data Exploration](#)[Graphing - Publishing](#)

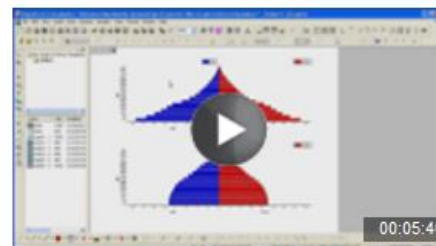
Workbook and Data

[Workbook and Data - General](#)[Workbook and Data - Processing](#)[Workbook and Data - Matrix and Images](#)

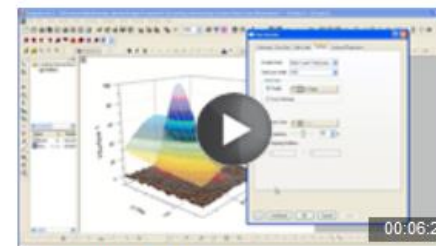
Analysis

[Analysis - Curve Fitting](#)[Analysis - Peaks and Baseline](#)[Analysis - Signal Processing](#)[Analysis - Statistics](#)

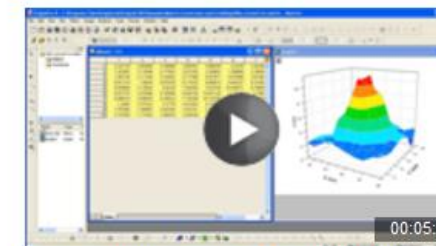
Productivity

[Productivity - Gadgets](#)[Productivity - Batch Processing](#)

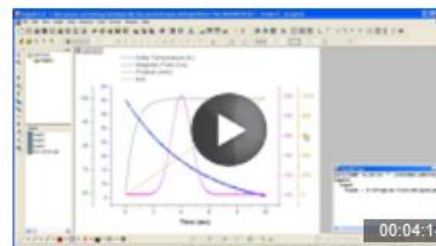
Creating a Multiple Layer Bar Plot



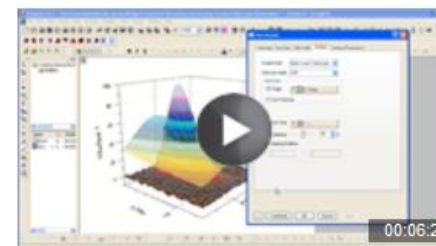
Intersecting Surfaces



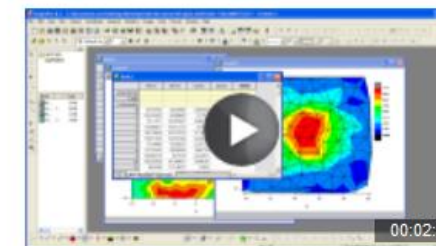
Convert Worksheet to Matrix to Plot 3D Surface



Multi-Y Plots Using Templates



Virtual Matrix



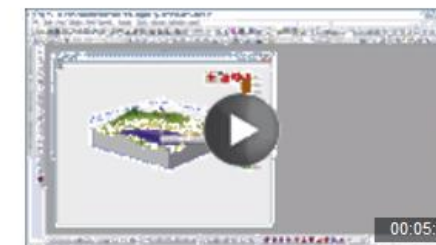
Contour Plots and Color Mapping



Radar/Spider Chart



Box Plot



Origin 3D OpenGL Graphs



All Recorded Webinars

Below are recordings of our recent webinars. Play the recording on our website or on YouTube. Download the project file to follow along.

Want to register for a Webinar? [View our Up-Coming Webinar schedule.](#)

Topic	Date Recorded	Playback	Related files	YouTube
Working with NetCDF Climate Data in Upcoming Origin 2021b Join this webinar for a preview of how NetCDF Climate data can be imported and analyzed in our up-coming Origin 2021b version. A beta release will be available for testing and for providing us feedback on the implementation.	12/11/2020	Play Download	Upon request (webinar@originlab.com)	
Basic Graphing In this webinar, we will go over the basics of creating, modifying and publishing graphs.	12/4/2020	Play Download	OPJU File	
Data Processing We will demonstrate various data transformation and reduction tools including stacking and unstacking data, reducing duplicates, pivot tables, splitting and joining worksheets.	12/4/2020	Play Download	OPJU File	
Curve Fitting In this webinar, a member of OriginLab's Technical Support department will introduce various linear and nonlinear curve fitting tools in Origin 2020b including Gadgets, analysis tools, and Apps geared towards basic curve fitting. The presenter will run through examples of typical curve fitting scenarios that most users will encounter.	11/20/2020	Play Download	OPJU File	
User-Defined Fitting Functions This webinar will introduce creating user-defined fitting functions with Origin. We will introduce the tools associating with creating functions and use those tools to adapt existing functions as well as create new ones from scratch.	11/20/2020	Play Download	OPJU File	
What's New in Origin 2021 In this webinar, we will cover exciting new features that are available in Origin 2021 (Excel Formula Bar, Color Manager, Python Improvements, New Graph Types and Apps, etc.)	11/13/2020	Play Download	OPJU File	

- Support FAQs
- Maintenance Center
- Help Center
- Documentation
- Video Tutorials
- Graph Gallery
- Apps
- Blog
- User Case Studies
- User Forums
- Submit Feature Suggestion
- Submit Bug Report
- Webinars
- Training
- Consulting

Show:

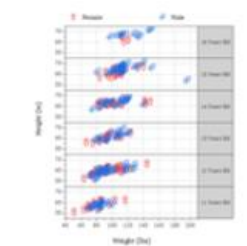
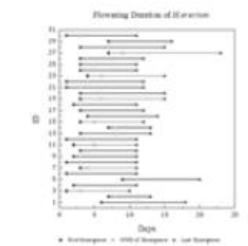
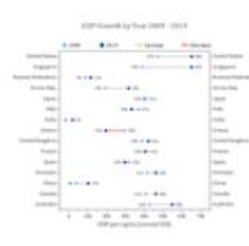
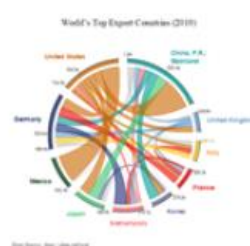
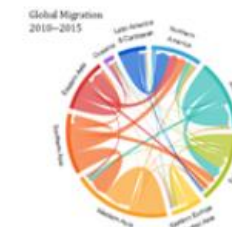
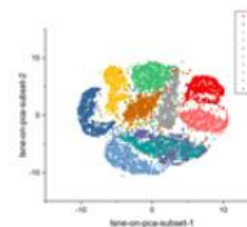
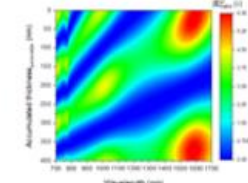
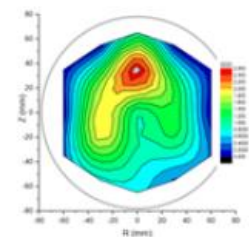
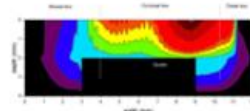
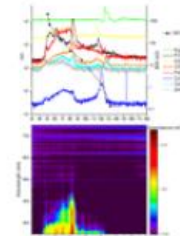
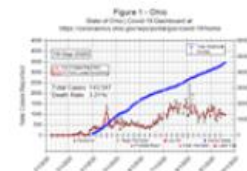
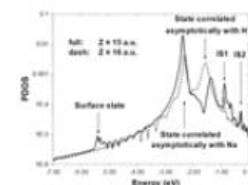
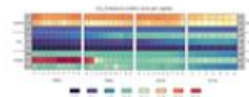
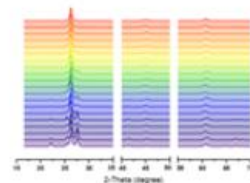
Sort By:

Newest

Showcase your
graph in our
graph gallery!

- Overview
- Overview
- Search
- All
- Analysis
- Area Plot
- Bar Chart
- Beeswarm Plot
- Bland-Altman Plot
- Box Chart
- Bridge chart
- Bubble Plot
- Bullet Chart
- Contour Plot
- Contour Profile
- Dendrogram
- Double-Y Plot
- Chord Diagram
- Cluster Plot
- Correlation Plot
- Fence Plot

Search more...





Origin File Exchange

Apply Filters

✕ Reset Filters

Terms

Search..

Refine by Type

App

Refine by Category

- ☐ Graphing
- ☐ Data Analysis
- ☐ Data Handling
- ☐ Import and Export
- ☐ Miscellaneous
- ☐ Data Connector

Min. Origin Version

N/A

Suggest a New App

Submit a file

Submission Guidelines

Update my files

Sort by: Most Download (last 90 days)

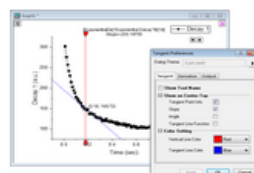
Items per page: 50

First

1 2 3 4 5

Last

Tangent by OriginLab



Min.Version: 2016 (9.3)

Updated on: 6/29/2020

Draw a tangent line at selected point of a data plot.

App



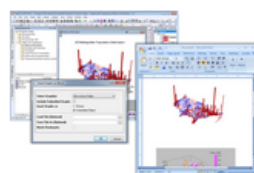
77 Ratings

77 Comments

25176 Downloads (90 Days)



Send Graphs to Word by OriginLab



Min.Version: 2018b (9.55)

Updated on: 7/24/2018

Send selected Origin graphs to Microsoft Word.



App



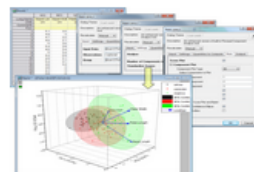
18 Ratings

18 Comments

13388 Downloads (90 Days)



PRO Principal Component Analysis by OriginLab



Min.Version: 2017 (9.4)

Updated on: 12/5/2019

An enhanced version of Principal Component Analysis tool.

App



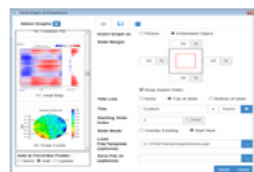
27 Ratings

27 Comments

13236 Downloads (90 Days)



Send Graphs to PowerPoint by OriginLab



Min.Version: 2018b (9.55)

Updated on: 11/30/2018

Send graphs to PowerPoint as picture or embedded object.



App



11 Ratings

11 Comments

11920 Downloads (90 Days)



Simple Fit by OriginLab



Username: Password:

LOGIN

☒ Save Password[Forgot your Password?](#) | [Admin Options](#)

All Forums

Origin中文论坛

Origin 中文论坛 (Chinese Origin Forum)

New Topic

Show all topics

Page: 1 of 8

	Topic	Author	Replies	Read	Last Post	
	Sticky: OriginPro 2021b Beta 8 测试版发布	Echo_Chu	7	1045	03/25/2021 10:00:37 PM by: Echo_Chu	
	Sticky: OriginPro 2021 中文学习版正式发布	Echo_Chu	1	3965	12/22/2020 09:38:34 AM by: Mengzhao Wang	
	Sticky: OriginPro 免费中文学习版任性使用	vickey	50	271306	10/08/2020 10:33:39 PM by: yuki_wu	
	Sticky: OriginPro 校园版	Echo_Chu	0	5312	12/09/2019 10:30:29 AM by: KeiAhiko	
	Sticky: Origin软件版本分类说明	JacquelineHe	0	1309	11/12/2019 02:28:35 AM by: JacquelineHe	
	Sticky: Origin中文视频教程	Linda_zeng	26	45732	10/30/2019 05:38:59 AM by: Echo_Chu	
	Sticky: 给 Origin 初学者的学习建议	Echo_Chu	1	5986	11/16/2018 02:44:31 AM by: Echo_Chu	
	Sticky: Origin 学习版 MSI 安装包	timist	0	4927	05/08/2017 05:14:45 AM by: timist	
	Sticky: Origin原版中英文视频教程(百度网盘)	SeanMao	3	18230	01/11/2017 02:51:23 AM by: Echo_Chu	
	Sticky: FAQ:(学习版)如何显示所有窗口?	yuki_wu	0	8207	07/24/2016 10:57:58 PM by: yuki_wu	
	Sticky: Origin软件学习交流群	SeanMao	0	5451	05/11/2016 11:40:28 PM by: SeanMao	
	坐标轴名称中的微米符号无法显示	milan3	0	7	03/30/2021 08:42:58 AM by: milan3	
	如何作图 双横坐标关联	清枫1233	1	24	03/23/2021 5:38:31 PM by: cayang	
	求救，如何提取柱状图的数据	夜寐	2	68	02/26/2021 06:38:58 AM by: 夜寐	
	使用新的激活码续期失败	luckyhan1994	3	612	02/25/2021 9:41:54 PM by: yuki_wu	
	Google map 插件无法使用	liyinq@163.com	2	148	01/20/2021 08:11:13 AM by: liyinq@163.com	

Username: Password:

LOGIN

☒ Save Password[Forgot your Password?](#) | [Admin Options](#)

All Forums

Origin中文论坛

Origin 中文论坛 (Chinese Origin Forum)

OriginPro 2021 中文学习版正式发布

[New Topic](#) [Reply to Topic](#)[Printer Friendly](#)

Author	Topic
Echo Chu <small>China Posts</small>	<div>Posted - 10/27/2020 : 9:40:02 PM</div> <h2>OriginPro 2021 中文学习版正式发布</h2> <p>如果您已经安装过 OriginPro 2021 Beta 版，运行正式版安装包时候请选择 "修复"。</p> <p>如果您已经申请 OriginPro 学习版并激活，可以直接安装 OriginPro 2021 进行使用，安装时不需填序列号，启动 Origin 2021 之后选择 Help: Activate License (帮助: 激活许可证)，点击 "激活"。</p> <p>需要 OriginPro 学习版序列号或者学习版已过期的同学可以参考以下视频： https://www.bilibili.com/video/BV1SE41157o4</p> <p>OriginPro 2021 百度网盘下载链接 https://pan.baidu.com/s/1iQdC_CCdt2z8pkrlJOWog 提取码: p57u</p> <p>OriginPro 2021 官网下载链接 https://www.originlab.com/MyOrigin2021Download</p> <p>注： 1. 需申请学习版序列号并按申请指引成功激活后 OriginPro 才可安装为中文版 2. OriginPro 中文版支持 OriginPro 中文和英文界面的转换 (菜单 Help: Change Language)</p> <p>OriginPro 2021 中文介绍网页 http://www.originlab.com/2021C</p> <p>OriginPro 2021 相关视频 2021 新功能介绍 https://www.bilibili.com/video/BV1ra4y1L7cl</p> <div>2021 中文文档 https://pan.baidu.com/s/1kULlJDH</div>

Search

Username:

Password:

LOGIN

☒ Save Password
[Forgot your Password?](#) | [Admin Options](#)

-  [All Forums](#)
-  [Origin中文论坛](#)
-  [Origin 中文论坛 \(Chinese Origin Forum\)](#)
-  [Origin软件学习交流群](#)

 [New Topic](#)  [Reply to Topic](#)
 [Printer Friendly](#)

Author	Topic
SeanMao China 288 Posts	<div><div>Posted - 05/11/2016 : 10:33:02 PM</div><div>    </div></div> <div><p>Origin软件用户交流群 - 南方 210500924 Origin软件用户交流群 - 北方 821984945 Origin软件用户交流群 - 华东 828185090 Origin软件用户交流群 - 西部 645057781 Origin软件用户交流群 - 华中 1071333128</p><p>Origin软件用户交流群是一个由OriginLab中国团队创建的用于Origin学习和交流的QQ群。</p><p>在这里，大家的问题可以得到更专业的解答，群里还会不定期分享一些稀缺优质资源和Origin产品的一手信息。群里的盆友大多来自各大高校，大家可以彼此分享使用Origin的经验，互帮互助。</p><p>Origin中文论坛收集了软件交流群里面大家常问的问题并提供一些Origin使用的技巧和黑科技。希望大家踊跃发帖，壮大我们这个活泼，友爱的大集体。</p><p>入群须知：</p><p>为了方便QQ群成员的管理，请大家在加入Q群之后把群备注名称改为格式：</p><p>学校-专业-昵称</p><p>谢谢！</p><p>希望Origin能够更好地帮助各位朋友，也希望大家多多提出建议，让我们不断完成产品。</p></div>



主页

动态

投稿 237

频道 9

搜索视频



关注数

8

粉丝数

2.2万

TA的频道



快速入门

3-14



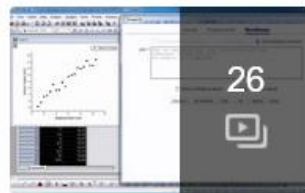
新功能简介

3-14



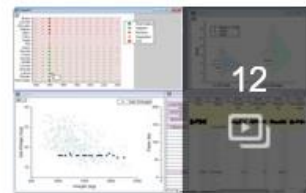
热门Apps

3-14



数据绘图

3-14



数据处理

3-14



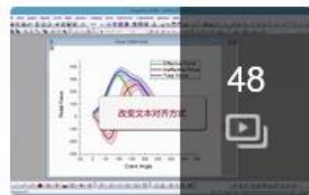
数据分析

3-14



批量处理

3-14



技巧窍门 (无声短视频)

3-14



直播培训

3-14

17个视频 | 3-14更新

默认排序

倒序排序



05:00

分峰拟合实例教程

2263 6-19



04:20

波峰分析入门

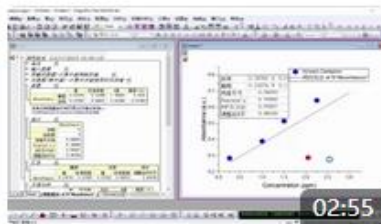
1530 4-19



05:37

非线性拟合入门

9014 4-12



02:55

OriginPro分析及自动重算入门

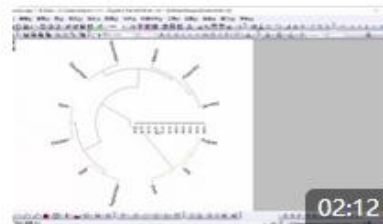
429 3-5



02:44

OriginPro统计图入门

525 3-5



02:12

OriginPro中的聚类分析

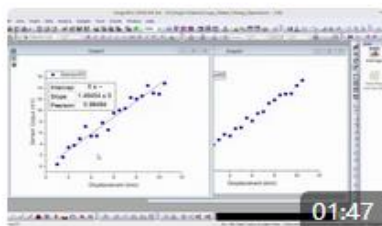
797 3-5



02:46

Origin数据分析简介

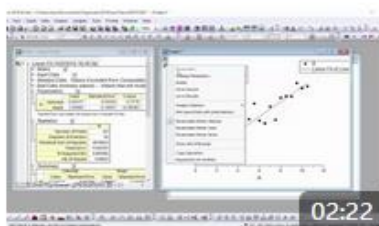
749 3-5



01:47

从图上复制黏贴拟合操作

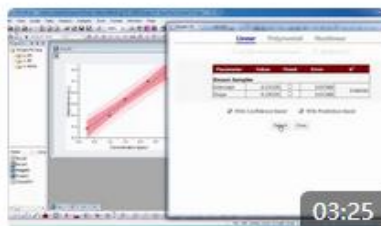
249 3-10



02:22

定制图上的拟合报告表格

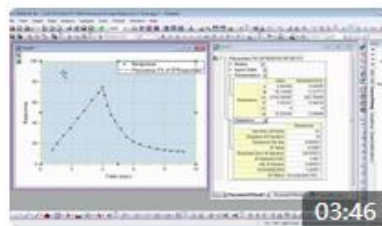
231 3-10



03:25

Simple Fit App - 简单曲线拟合

869 3-6



03:46

Piecewise Fit APP - 分段曲线拟合

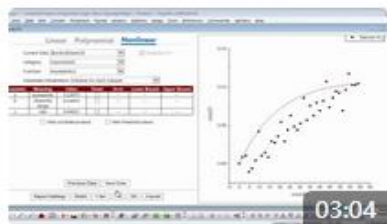
742 3-6



02:32

Rank Model App - 最佳拟合模型的选择

538 3-6



03:04

Speedy Fit - 快速拟合多个数据

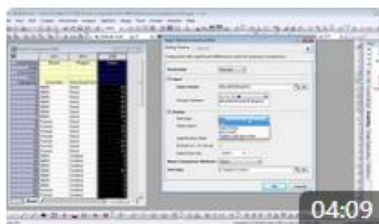
652 3-6



02:54

Stats Advisor - 统计顾问

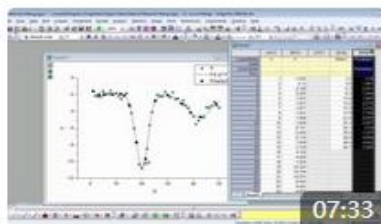
109 3-6



04:09

Paired Comparison Plot App - 绘制带有差异显著性标记的图

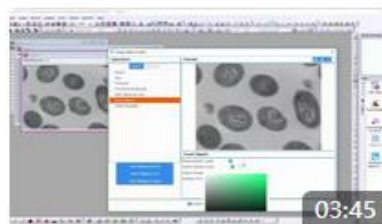
1819 3-6



07:33

Neural Network Fitting App - 神经网络拟合

546 3-6



03:45

Image Object Counter - 图像识别工具

366 3-6

19个视频 | 3-14更新

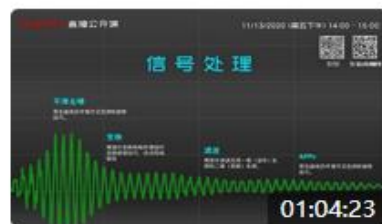
默认排序

倒序排序



统计入门——2020年12月4日直播公开课

▶ 538 ▶ 12-4



信号处理——2020年11月13日直播公开课

▶ 681 ▶ 11-13



Origin 2021 新功能介绍——2020年10月30日直播公开课

▶ 1049 ▶ 10-30



论文配色指南——2020年10月16日直播公开课

▶ 7916 ▶ 10-16



三维绘图详解 (3D Graph)——2020年9月25日直播公开课

▶ 1896 ▶ 9-25



数据地图 (Data on Map)——2020年9月11日直播公开课

▶ 687 ▶ 9-11



多图绘制攻略——2020年8月28日直播公开课

▶ 1306 ▶ 8-28



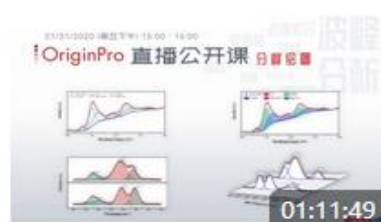
Origin 与 Python 交互——2020年8月14日直播公开课

▶ 720 ▶ 8-14



Python语法基础介绍——2020年8月14日直播公开课

▶ 449 ▶ 8-14



分峰绘图 (Peak Analysis)——2020年7月31日直播公开课 -

▶ 2325 ▶ 8-3



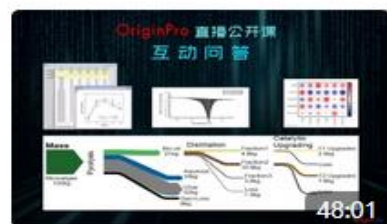
波谱分析 (Peak Analysis)——2020年7月31日直播公开课

▶ 2068 ▶ 7-31



Origin 和 Python 的交互使用——2020年7月17日直播公开课

▶ 1054 ▶ 7-20



互动问答——2020年7月17日OriginPro直播公开课

▶ 1123 ▶ 7-17



XRD 科研绘图——2020年7月3日直播公开课

▶ 3871 ▶ 7-3



拟合专题——2020年6月12日直播公开课

▶ 2818 ▶ 6-13



拼图专题——2020年5月29日直播公开课

▶ 1376 ▶ 5-29



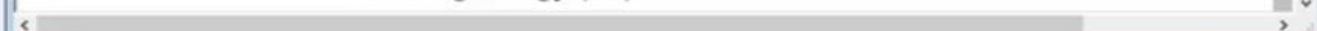
2020b 新功能介绍专题——2020年5月8日直播公开课

▶ 1451 ▶ 5-9



Origin 入门——2020年3月20日直播公开课

▶ 1904 ▶ 3-22



- 大面积的图用柔和的颜色 (柱状图/面积图)
- 小面积的图用强烈的颜色 (折线图/散点图)

THANK YOU



中国科学技术大学
University of Science and Technology of China