

Lab Graph - public user guide

This guide covers general desktop workflows with a small synthetic dataset. It contains no paper-reproduction tutorials or research datasets.

Save your work as a **.lgs project** so that the graph and its data remain editable. Use exports for presentation and sharing.

Choose a display language

In Lab Graph, open **Tools > Language**, choose **English** or **Korean**, and restart the application if requested. This website starts in English; its language menu also offers Korean.

1. Your first graph

Create a new project for practice. The values below are invented for this guide and do not describe an experiment.

1. Choose **File > New > New workbook** (Ctrl+Shift+B).
2. Paste the table below into the first data cell. Use column A as X and column B as Y.
3. Select column B and choose a line or line-with-symbols graph from the Graph menu.
4. Set the axis titles to **Time (arbitrary units)** and **Response (arbitrary units)**.
5. Save the project. Export a PNG from the File export menu.

A(X): Time	B(Y): Response
0	0.0
1	1.8
2	3.1
3	4.0
4	4.6

Check: the graph should contain five points. Changing a source value should change its linked point.

2. Worksheets and data

Paste a table or import CSV/XLSX. Check column names, units, numeric values, missing entries and date interpretation before plotting.

- **X**: the independent coordinate.
- **Y**: measurements or response values.
- **Y error**: uncertainty associated with a Y column, rather than another plotted series.

Use formulas and worksheet operations when needed, and save a project copy before reorganizing data. A .lgs project can contain worksheets, graphs and AI conversation history. Review it before sending it to another person.

3. Choosing and formatting graphs

Select the columns needed by the graph type. XY plots use paired coordinates; distribution plots use observations; XYZ plots and matrix views use a different data layout.

Use the graph type gallery for generic built-in examples. Choose a format that communicates your data rather than selecting a style for appearance alone.

- Open axis settings to adjust the scale, limits, ticks, units and labels.
- Use plot details to adjust lines, symbols, colors and error bars.
- Check legends, annotations and panel spacing at the final display size.
- For logarithmic axes, verify that the plotted values satisfy the scale requirements.

4. Analysis and verification

Lab Graph includes fitting, statistics and signal-processing tools. Select the intended source data and inspect the method, range, weighting and output options before running an analysis.

Check the fitted curve and residuals, as well as the model parameters. Confirm units and assumptions. A visually smooth curve does not establish that a model is scientifically appropriate.

Keep the original data and save analysis results in your project so that you can revisit the choices.

5. Working with PowerPoint

Editable graph object

Use **Copy Page** (Ctrl+J), then paste into desktop PowerPoint. Double-click the graph object to reopen it in Lab Graph. Edit the graph or its data, then use **PowerPoint update** (Ctrl+U) or close the editing window to update the slide.

Editable PowerPoint shapes

Use **Copy as PowerPoint shapes** (Ctrl+Shift+J), then paste. Supported lines, symbols and text are editable as PowerPoint objects. This does not preserve the same reopenable graph-data workflow as an embedded object.

Export a presentation

The File export menu can create a PPTX. Choose the representation that matches your editing needs. Reopening embedded graph objects requires both the desktop application and desktop Microsoft PowerPoint.

6. Saving and exporting

Save a .lgs project as your editable master. Choose a supported image, vector or presentation export for delivery.

- Use PNG for a raster image and check the intended size and resolution.
- Use a supported vector format when you need scalable lines and text.
- Use PPTX or PowerPoint copy commands for presentation editing.

Inspect the exported file in its destination application. Confirm fonts, line widths, labels, clipping and special characters.

7. AI assistance and privacy

AI assistance is optional. Connect your own compatible provider through the AI settings. The provider may require a login or API key and an internet connection.

Review a suggested change before accepting it. AI can misunderstand the request, produce incorrect labels or choose unsuitable formatting. Inspect the result yourself.

Prompts, references and canvas context may be sent to your chosen provider depending on the feature and settings. Do not include confidential data, personal information or account secrets in a request. Provider usage limits and charges apply.

8. Troubleshooting and sharing

- **No graph:** check the selected columns, column roles and valid numeric values.
- **Unexpected axes:** check the scale type, limits, units and column binding.
- **Cannot reopen a PowerPoint graph:** verify that Lab Graph and desktop PowerPoint are installed, and that the graph was pasted as an embedded object.
- **Installation cannot continue:** save and close the application and Office documents, then retry. The installer does not close documents for you.

Before sharing

Check project contents, worksheets, conversation history, annotations, file metadata and screenshots. A public figure should include only the information you intend to disclose.