

SigmaStat Version 1.0

A powerful and intuitive statistical data analysis platform designed for the scientific and engineering community and academia—from undergraduate learning to advanced doctoral and post-doctoral research.

By connecting these essential capabilities in one platform, SigmaStat enables researchers, scientists, engineers, students, and analysts to move seamlessly from data → analysis → interpretation → visualization → reporting, accelerating the journey from complex datasets to clear and reliable insights.

Graph

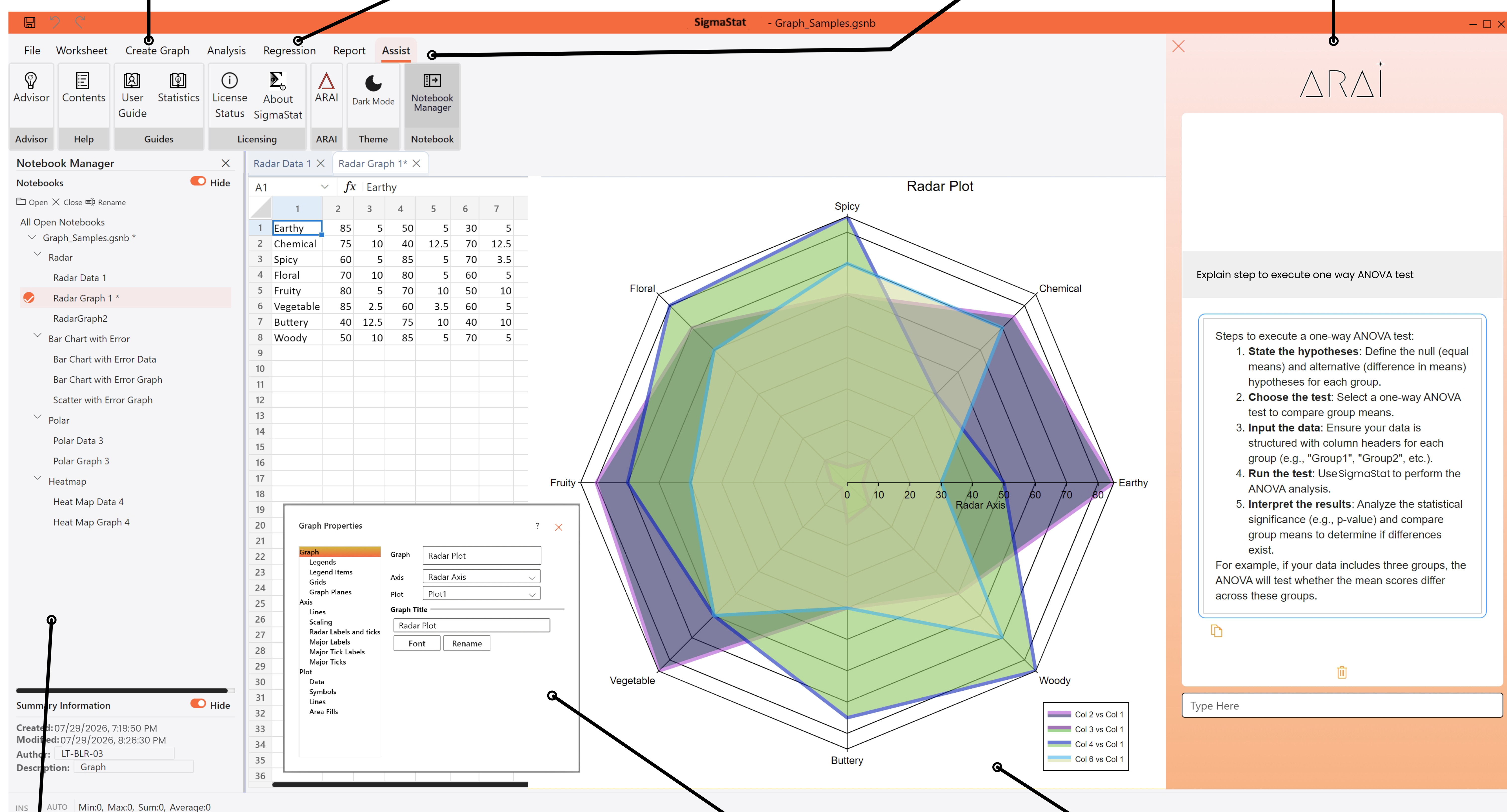
Comprehensive & flexible graphing engine
Designed to support scientific, statistical, and engineering data visualization needs, with a wide range of 2D and 3D graph types.

Regression Tool

Robust set of regression and statistical modeling tools to analyse relationships between variables, build predictive models, and support both continuous and discrete outcome data.

ARAI – AI-Driven Intelligence & Automation

AI-powered assistance layer that transforms how you work. Instant answers to your questions using an RAG knowledge system. Step-by-step workflow guidance
Offline & Secure – ARAI operates locally, ensuring your research data remains private without relying on external cloud services.



Notebook Manager

Save multiple notebooks, pages, worksheets, reports, transforms, equations and macros. Rearrange notebook items with drag-and-drop.

Results Graphs For Statistics

Select specific types of graphs to represent statistical analysis results. Multiple graphs can be created simultaneously.

Graph Properties

The primary interface for editing graph objects on your page. All graph categories are displayed in a tree while associated properties are displayed on the right.

Work Directly on the Graph

Objects are selectable for modification. Mini-toolbars allow for direct changes.

Key Capabilities:

Comprehensive Statistical Analysis:

Advanced Regression & Modelling:

Data Visualization:

Statistical Reporting:

Flexible Data Integration:

Powerful Data Transformation:

ARAI – AI-Powered Statistical Assistance

A key differentiator of SigmaStat 1.0 is ARAI, its integrated AI-powered assistant. ARAI helps users understand statistical concepts, navigate the software, select appropriate analytical methods, and complete workflows without leaving the application.

Its Retrieval-Augmented Generation (RAG) system uses a curated local knowledge base containing SigmaStat documentation, technical support resources, white papers, and statistical references.

Privacy by design: ARAI operates locally on the user's computer. Questions, data, and interactions are not sent to external AI services, providing offline access, enhanced privacy, and reduced dependency on internet connectivity.



Scientific Analysis. | SmarterDecision.

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Key Features in SigmaStat 1.0:

I. Graphing Capabilities

Graph Types:

2D Graphs:

- Scatter (4Types)
- Scatter with Error Bar (7 Types)
- Line (12 Types)
- Scatter and Line (11 Types)
- Scatter and Line with Error Bar (4 Types)
- Vertical and Horizontal Bar (4 Types),
- Grouped Bar (4 Types)
- Vertical Stacked Bar
- Radar (4 Types)
- Area Plots (4 Types)
- Box (2 Types)
- Polar (3 Types)
- Histogram
- Ternary (3 Types)
- Bubble, Pie
- Heat Map
- Geographical Maps

3D Graphs:

- Scatter
- Line – Trajectory
- Mesh
- Waterfall
- Contour line and filled (2 Types)

Technical Axis:

- Ternary
- Linear
- Log Common
- Category

Graph Properties

Graph Property Dialog

- A user-friendly graph properties dialog.
- Centralized access to all graph customization settings.
 - Dynamic property updates.

Symbol, Line, and Fill Customization

- 20+ symbol types
- Extended line style options
- Flexible fill styles
- Customizable Legends
- Grid Styles

Axis Properties

- Axis thickness, colour, and range.
- Multiple axis support via an Add Axis Wizard
- Tick customization
 - Major tick length, thickness, and colour
- Tick label formatting
 - Customizable prefixes and suffixes

II. Statistical Analysis Features

Statistical Tests:

- Describe Data
 - Descriptive statistics
 - One Way Frequency Tables
- Single Group
 - One Sample T-test
 - One Sample Signed Rank Test
- Compare Two Groups
 - T-tests
 - Rank Sum Test
- Compare Many Groups
 - One-way ANOVA
 - Two-way ANOVA
 - Three-way ANOVA
 - ANOVA on Ranks
 - One Way Analysis of Covariance (ANCOVA)
- Before and After
 - Paired T-Test
 - Signed Rank Test
- Repeated Measures
 - One Way Repeated measures ANOVA
 - Two Way Repeated measures ANOVA
 - Repeated measures ANOVA on Ranks
- Rates And Proportions
 - Z-test
 - Chi-square
 - Fisher Exact Test
 - McNemar's Test
 - Relative Risk
 - Odds Ratio
- Principal Components Analysis (PCA)
- Correlation
 - Pearson Product Moment
 - Spearman Rank Order
- Survival analysis
 - Kaplan-Meir
- Single Group
- Log Rank

- Gehan-Breslow
 - Cox Regression
- Proportional Hazards
- Stratified Model
- Normality

Transforms:

- Quick Transform
- User Defined Transform
- Statistical Transform

Statistical Advisor:

- Advisor Wizard guides users through selecting the most appropriate statistical test based on study design, data type, and assumptions
- Reduces error and improves confidence in test selection for both new and advanced users

Statistical Report:

A built-in reporting engine for generating statistical outputs.

- Background color
- Insert tables with pre-defined styles or customize completely
- Zoom-enabled report
- Bookmarks/Table of contents
- Page header/Footer/page number:
- Page Setup
- Page Break
- Insert footnotes/endnotes
- Background Images
- Property panel

Statistical Result Graph:

- Automatically generated result graphs
- Consistent, accurate visualization of statistical outcomes

III. Regression and Modelling Tools

Linear Regression:

- Linear
- Multiple Linear
- Deming

Non-Linear Regression:

- Non-Linear
- Polynomial

Discrete Dependent Variable

Regression:

- Login
- Probit
- Multinomial Logit
- Poisson
- Generalized Poisson
- Negative Binomial
- Generalized Negative Binomial

Variable Selection (Regression):

- Stepwise –Forward
- Stepwise – Backward

IV. Additional Capabilities

Data Worksheet:

- Formula bar- Edit/enter the cell values through a formula bar directly.
- Apply formulas to the cells.
- Insert color, symbols and line styles
- Cell display formats
- Format currencies, accounting, percentage and fraction-based data.
- Font Formats- Perform text styling like bold, italicize, strikethrough and underline.
- Fill color – Select and fill the background color.
- Borders – Define cell borders, specify size of borders, colors and apply styling options
- Justify – Able to align the text in cells (left, center, right).
- Vertical align – Perform vertical alignment on cell values (top, center, bottom).

Data Management:

Import

- Excel files
- Directly import SAS data sets (.sd2 and .sas7bdat files)
- Directly import Minitab data sets (.mtw & .mpj files)
- Open ASCII Plain, CSV
- Import any ODBC compliant database
- Run SQLqueries
- R Data
- Statistica
- Matlab
- Stata
- JMP files
- JDBC support

Export

- SAS files (.sd2 files)
- Minitab
- ASCII Text
- Tabbed, Comma, Excel
- R Data
- Matlab
- Stata
- JMP

Dark and Light Mode:

- Full support for Dark and Light themes
- Reduced eye strain: It decreases screen glare for comfortable reading in low-light rooms
- Battery efficiency: Dark pixels drain significantly less power on mobile OLED and AMOLED displays

Graph Export Options:

- Export individual graph as PDF, SVG, PNG, JPG

Report Export Options:

- Word, PDF and text

General Features:

- Print
- Auditing
- Password Protection
- Global Options for Worksheet, General, Report, Graph
- Assist panel with Advisor, ARAI, Help content, Theme etc.

V. ARAI – AI-Driven Intelligence and Automation

- ARAI, an AI-powered assistance layer designed to enhance usability, discovery, and productivity.
- Added a query-based Retrieval-Augmented Generation (RAG) system.
- Knowledge Base includes
 - Application help documentation
 - Technical support articles
 - White papers
 - Reference materials
 - User Guides
 - Statistical Guides



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For all enquires please email

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