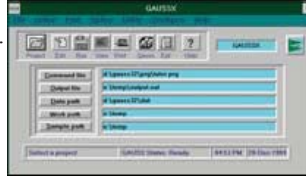


# Third Party Products for GAUSS™ / GAUSS Engine™

## GAUSSX

GaussX combines a full-featured set of professional econometric routines, written in GAUSS with a GUI interface in one software package. Features include linear and non-linear estimation, time series analysis, simulation and testing. The GAUSS source is included, and thus econometric routines can be extracted and incorporated in standalone GAUSS programs. WINDOWS/UNIX



## MERCURY/ MERCURY GE Interface Tools for GAUSS /GAUSS Engine

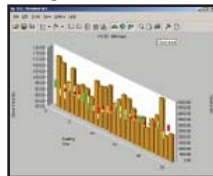
MERCURY consists of a set of functions that enable programmers to interact with GAUSS or the GAUSS Engine as part of an external application. These functions provide the means of sending data or strings to GAUSS from an external application, running GAUSS code, and returning data or strings from GAUSS back to the external application. Sample examples include C++, Visual Basic, and Excel. WINDOWS<sup>(1)</sup>

## GUI TOOLS

The underlying idea behind GUI Tools is to provide an interactive graphic user interface for GAUSS for Windows. GUI Tools allows the programmer to have the end user respond to a graphic-based dialog, along with standard Windows controls, using both keyboard and mouse. GUI Reader is freely available. WINDOWS

## INTERACTIVE GRAPHIX: Graphic Tools for GAUSS

Interactive GraphiX is a graphics package specifically designed to work with GAUSS for Windows. IGX provides control over a graphic environment while the graph is displayed, either interactively through menus using the mouse and keyboard or through the use of GAUSS commands. A very rich set of graphic features are provided. Output can be saved in a number of popular formats, and image processing tools are provided. WINDOWS<sup>(1)</sup>



## LIKPAK

LikPak provides a set of GAUSS likelihood procedures that are commonly used in econometrics and show, by example, how a model can be parameterized using these likelihoods. LikPak is the perfect companion to an optimization package such as MaxLik, MaxLikMT, or CMLMT. WINDOWS/UNIX

## SYMBOLIC TOOLS/SYMBOLIC TOOLS GE

Symbolic Tools augments the numeric and graphical capabilities of GAUSS/GAUSS Engine with additional mathematical functionality based on symbolic computations, including automatic differentiation, symbolic algebra, exact linear algebra, language extension, and user-defined precision. The computational work is carried out by the Maple kernel. (Requires Maple 9 or higher.) WINDOWS<sup>(1)</sup>  
By: Econotron Software, Inc.

<sup>(1)</sup>Download free evaluation copy from [www.econotron.com](http://www.econotron.com)

# GAUSS

## COINT: Co-Integrated Systems

A suite of econometric software for GAUSS users with a special focus on nonstationary time series, unit roots, cointegration and modern model selection methods for economists, econometricians, statisticians, engineers, forecasters and other users of time series methods. WINDOWS/UNIX  
By: Sam Ouliaris & Peter C.B. Phillips

## TSM: Time Series/ Wavelets for Finance

TSM is a GAUSS library for Time Series Modeling. It contains procedures for the analysis and estimation of ARMA, Vector ARMA, and VARX processes, state space models, fractional process, structural models and spectral analysis. The estimation procedures for these models permit the placing of linear constraints. Requires Optimization application. WINDOWS  
By: Ritme Informatique

## GENO: General Evolutionary Numerical Optimizer

GENO is a numerical optimizer with exceptionally wide application. It may be used to solve uni- or multi-objective optimization problems: the problem may be static or dynamic, linear or nonlinear, unconstrained or constrained (by equations or inequalities); in addition, any combination of the variables may assume real or discrete values. WINDOWS/UNIX  
By: Ike's Research Ltd.

## SSATS: State Space Aoki Time Series

SSATS contains 19 procedures designed to allow easy implementation of multivariate state space time series models. Separate procedures find optimal model specification (choice of two methods), estimate model parameters, produce in-sample and out-of-sample forecasts, compute summary statistics, provide diagnostic tools, and more. Model specification and forecast evaluation procedures can be used with all classes of time series models. WINDOWS/UNIX  
By: Jeffrey Dorfman & Art Havenner

## FREE DOWNLOAD CellVision, Dyngames & FairTaylor at:

[www.msgpl.com.au](http://www.msgpl.com.au)  
By: McKibbin Software Group

APTCH SYSTEMS, INC.

### QP: Quadratic Programming

QP solves the standard quadratic programming problem:  
 $\min(1/2x'Qx - x'R)$  subject to constraints:  
 $Ax = B$  and  $Cx \geq D$  with bounds:  
 $X1 \leq x \leq Xu$  where  $x$  is a vector or unknown coefficients, and  $Q, R, A, B, C, D, X1$  and  $Xu$  are known matrices. Computes constrained least squares regression. Includes Portfolio Management procedures based on the Markowitz asset allocation technique. WINDOWS/UNIX

#### LALIB

#### LAPACK for GAUSS

LALIB is an implementation of LAPACK—the update of the LINPACK and EISPACK linear algebra function libraries. WINDOWS  
By: RJS Software

#### TSAGL:

#### Time Series Analysis and Graphics Library - Signal Processing Analysis and Display

Time Series Analysis and Graphics Library (TSAGL) is a general-purpose signal processing, analysis and display package. It contains a host of basic and complex algorithms that allows you to develop sophisticated programs based on your specific needs. Over 80 procedures arranged in 5 libraries are implemented, and many reflect advanced concepts in the field of signal processing. WINDOWS

#### MCTSA:

#### Multi-Channel Time Series Analysis (MCTSA) Library

MCTSA is a collection of GAUSS procedures that allows standard signal processing (or time series analysis) to be performed on systems that have multiple input and output channels. Because time series in a multi-channel system (for example, economic indicator such as commodity prices) are interrelated, multi-channel operators are needed to act upon all these time series simultaneously so that the relationship(s) between the desired signals can be extracted and analyzed. Using more than 20 multi-channel equivalents of operators such as convolution, autocorrelation and cross-correlation advanced analysis and forecasting programs can be easily developed for many engineering and econometrics applications. WINDOWS  
By: Digital Acoustics

**Econometrics:** GaussX, COINT, TSM, SSATS, MCTSA, Symbolic Tools

**Financial:** COINT, TSM, SSATS, MCTSA, Symbolic Tools

**Linear Algebra:** LALIB

**Engineering/Physics:** GAUSSX, SimGauss, TSAGL, CtrlGauss, QueGauss, MCTSA, Symbolic Tools

**Social Sciences:** MARKOV, GAUSSX, SNAP, SSATS, Symbolic Tools

**Statistics:** MARKOV, TSM, SNAP  
**General:** GENO, Stat/Transfer, IGX, Mercury/Mercury GE, LikPak

#### CTRLGAUSS

#### Control Systems Transformation and Analysis

CtrlGauss provides the tools to design and analyze automatic control systems. Both transfer function and state-space representations are catered for, in both continuous and discrete forms. Functions are provided for building systems and displaying their characteristics for analysis. You can do frequency domain design on both continuous and discrete systems using Nichols, Nyquist, Bode and Root Locus plots and simulate the results. State space models can be transferred to and from SimGauss. WINDOWS/UNIX

#### QUEGAUSS

A discrete simulation module QueGauss simulates discrete systems involving queues. Examples include phone exchanges, manufacturing processes and hospital patient services. Using QueGauss you can examine the statistics of waiting times, transit times and utilization of resources. WINDOWS/UNIX

#### SIMGAUSS

#### Nonlinear Simulation

A fully interactive nonlinear simulation module written in GAUSS. SimGauss provides a fast and easy way to simulate nonlinear differential equations and state-space systems, such as vehicle dynamics, biological systems and economic models. The module features extensive user control. Comprehensive documentation and online help complete the package. WINDOWS/UNIX  
By: Forward Software

### PARALLEL GE For the GAUSS Engine™

Parallel GE is a networked user interface for the GAUSS Engine. With Parallel GE you can run multiple GAUSS Engine workspaces simultaneously on either local or remote computers. Increase your productivity and maximize your use of computer resources with Parallel GE. WINDOWS, LINUX  
By: Forward Software

#### MARKOV

#### A Statistical Environment for GAUSS

Markov is a statistical environment that makes it easier to do simple things without restricting your use of the full power of GAUSS. Statistical procedures include descriptive statistics, cross-tabulation, log-linear models, multinomial logit, probit, Poisson regression, ordered logit and probit, simultaneous equation models and regression analysis with collinearity diagnostics, residual analysis and powerful statistical tests such as White's information matrix test. Includes a shell for Monte Carlo simulation. WINDOWS  
By: J. Scott Long

#### SNAP:

#### Social Network Analysis Procedures

SNAP provides an integrated environment in which to conduct general mathematical/statistical investigations and social network analyses. WINDOWS  
By: Noah Friedkin

#### STAT/TRANSFER

Stat/Transfer allows the quick and accurate transfer of data between GAUSS and a variety of other programs, including Access, ASCII, dBASE, Excel, Matlab, ODBC databases, SAS, S-Plus, SPSS, Stata, Statistica, and more. It can be run from a comprehensive menu system or in batch mode. WINDOWS/UNIX  
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