

Start modeling in hours, not weeks

SAAM II is the fastest and most accurate way to create models, simulate experiments and analyze data. It is used worldwide by more than 7,000 pharmaceutical, biomedical and bioengineering researchers and practitioners and cited in over 2,000 scientific publications.

V2.3 NOW AVAILABLE FOR
WINDOWS & MAC



KEY FEATURES OF SAAM II

The screenshot displays the SAAM II software interface for a model named 'cholesterol_1.stu'. It features a top toolbar with icons for various functions like 'New', 'Open', 'Data', 'Parameters', 'Equations', 'Solve', 'Fit', 'Settings', 'Plots', 'Table', 'Values', 'Statistics', 'Sensitivity', 'Experiment', 'Batch', and 'Notes'. Below the toolbar is a menu bar with options like 'Compartment', 'Delay', 'Flux', 'Sample', 'Change Condition', 'Input', 'View', 'Model', 'Experiment', and 'Tools'. The main workspace is divided into several panels:

- Parameters Table:** A table with columns for Name, Type, Current, Low Limit, High Limit, and Adjust Current. It lists parameters like k10,1, k10,6, k11,2, k11,4, k11,6, and k11,7.
- Model Diagram:** A compartmental model diagram showing 'Stomach' (q3) and 'H2O' (q5) compartments with associated rate constants (k1, k2, k3, k4, k5, k6, k7, k8).
- Plot:** A graph showing 'Cholesterol Concentration' over 'Time' (0 to 150 hours). The y-axis ranges from 5.50e-04 to 8.00e-04. A legend indicates 's1' and 'H2O'.
- Data Window:** A window titled 'Cholesterol Concentration' showing a plot of 'Cholesterol Concentration' vs 't (Hours)'. The y-axis ranges from 5.50e-04 to 8.00e-04. A legend indicates 's1' and 'H2O'.
- Sample Attributes:** A dialog box for 'Sample Attributes' with fields for Name (s1), Unit (umole), and Associate with Data Name (FC). It also contains an 'Equations' field with the equation $s1 = q1/Q1$ and buttons for 'Help', 'Restore', and 'Apply'.

Annotations with arrows point to various features:

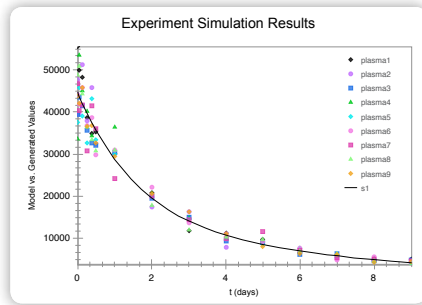
- Toolbar for easy access to frequent functions
- Tool palette provides quick access to modeling tools
- Quick-plots give you instant access to relevant results
- Select an element to inspect, edit and configure
- Review and configure all of the model parameters. Adjust them interactively to see immediate effects
- Create advanced plots and control scales, colors. Export to PDF, PNG, and other formats

Data, model, control and analytics can be viewed all in one window to make your modeling time more productive and responsive to changing conditions

SAAM II simplifies building compartmental modeling and parameter fitting for applications in biological and PK/PD/pharmaceutical research and instruction. It provides statistical information about the selected parameters and interventions during treatment development.

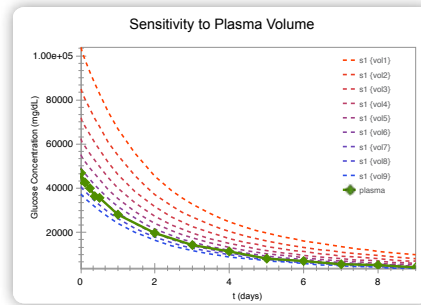
Complex analysis made easy

Experiment Simulation



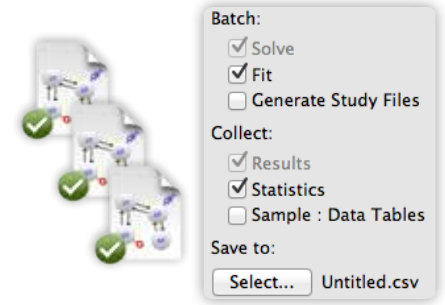
Generate synthetic data with a variety of error models and incorporate it into an existing model in flexible ways.

Sensitivity Analysis



Gain increased understanding of sensitivity to changes in key model parameters.

Batch Processing



Analyze multiple data sets and generate outputs automatically including plots.



Create Your Model

- ▶ Point and click creation of compartmental models allows inspection and customization of model equations to better capture modeling needs, including non-linear models.
- ▶ Wide range of inputs: bolus (instantaneous), constant-infusion, primed-infusion, or write your own equation.
- ▶ Schedule repeated doses with ease. Experiment timeline visualization that includes sampling times, bolus times and disruptions to the system.
- ▶ Import data and define error types associated with data collection to reflect real world error models. Error model definition is very flexible – error models can be defined for data points individually, in groups, or for all.



Publish Your Results

- ▶ Improved plotting and graphing, plot and tabulate results, use logarithmic scales and grids.
- ▶ Export or copy table and charts to multiple formats that are publication- and presentation-ready.



Computational Integration and Optimization

- ▶ Choice of gradient-estimation techniques: central vs. forward differences.
- ▶ Choice of integrators: Rosenbrock (stiff models), Pade, and Runge-Kitta order 5-4.
- ▶ Calculates Area Under the Curve (AUC), Akaike information criterion (AIC), and other metrics.
- ▶ Calculates covariance and correlations between fitted parameters.
- ▶ Support for fixed and adjustable parameters (for fitting), including an option to provide a Bayesian prior for hard-to-fit parameters.

LEARN MORE

SAAM II has a robust library for technical support:

Tutorials • Case Studies • FAQs

Webinars and instructional videos coming soon.

Visit us at www.TEGvirginia.com/resources