STELLA™

Systems Thinking for Education and Research

"Systems Thinking software like STELLA is an increasingly valuable tool for constructing understanding about all kinds of dynamic systems from natural environments to team dynamics to economic markets."

— Peter Senge, Author of *The Fifth Discipline*, Founding Chairperson, *Society for Organizational Learning*

Education and research are most exciting when they move out of the lecture hall and library and provide opportunity to create, experience, and see. STELLA™ offers a practical way to dynamically visualize and communicate how complex systems and ideas really work.

Both first-time and experienced modelers (including teachers, students, and researchers) use STELLA to explore and answer endless questions like:

- How does climate change influence an ecosystem over time?
- Would Hamlet's fate have changed if he'd killed Claudius earlier?
- How do oil prices respond to shocks in supply and/or demand?
- What will happen when the ozone layer is gone?
- How do basic macroeconomic principles affect income and consumption?

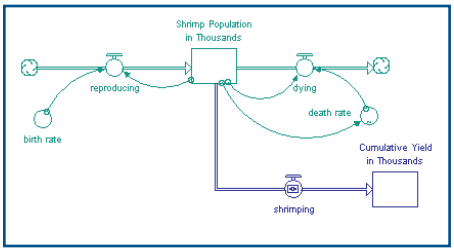
"STELLA gives us an enormously powerful and flexible tool for creating environments that allow people to learn by doing."

— Dennis Meadows, President, Laboratory for Interactive Learning, Co-author *Limits To Growth: The 30 Year Update*

The Gold Standard

Easy-to-use, STELLA models provide endless opportunities to explore by asking "what if," and watching what happens, inspiring the exciting *ah-ha* moments of learning.

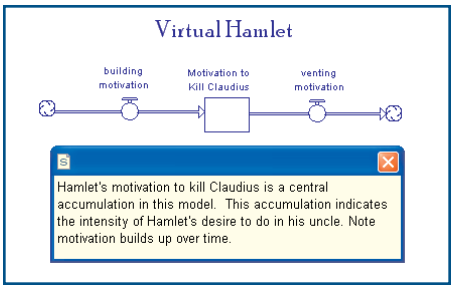
Thousands of educators and researchers have made STELLA the gold standard; using it to study everything from economics to physics, literature to calculus, chemistry to public policy. K-12, college, and research communities have all recognized STELLA's unique ability to stimulate learning.



Modeling helps students understand how systems work

Shared Learning

You know that your students have learned when they can, in turn, explain. STELLA models allow you to communicate how a system works — what goes in, how the system is impacted, what are the outcomes.



Storytelling provides an easy way to explain a model

STELLA supports diverse learning styles with a wide range of storytelling features. Diagrams, charts, and animation help visual learners discover relationships between variables in an equation. Verbal learners might surround visual models with words or attach documents to explain the impact of a new environmental policy.

Customer List

These are just a few of the education and research organizations using STELLA models to stimulate learning:

American University
Columbia University
Dartmouth College
Denison University
Draper Labs
Duke University
Environmental Protection Agency
Hotchkiss School
Johns Hopkins University
Juvenile Diabetes Research Foundation
London Business School
Los Alamos National Laboratory
NASA
Phillips Exeter Academy
Portland Public Schools
Purdue University
Queen's University
Sandia National Labs
Sustainability Institute
Tokyo University
University of Amsterdam
University of Basel
University of British Columbia
University of Buenos Aires
University of Chicago
University of Colorado
University of Guam
University of Hertfordshire
University of Illinois
University of Lund
University of Maryland
University of Michigan
University of North Carolina
University of South Africa
University of Sydney
University of Texas
University of Vermont
US Dept of Agriculture
US Fish & Wildlife
US Forest Service

Use STELLA to:

- Simulate a system over time
- Jump the gap between theory and the real world
- Enable students to creatively change systems
- Teach students to look for relationships — see the Big Picture
- Clearly communicate system inputs and outputs and demonstrate outcomes

"In my 35 years of teaching, I've never seen a tool like STELLA. It significantly increases a student's ability to understand and communicate what they've learned."

— Diana Fisher, Wilson High School, Portland, OR, Author, *Modeling Dynamic Systems*

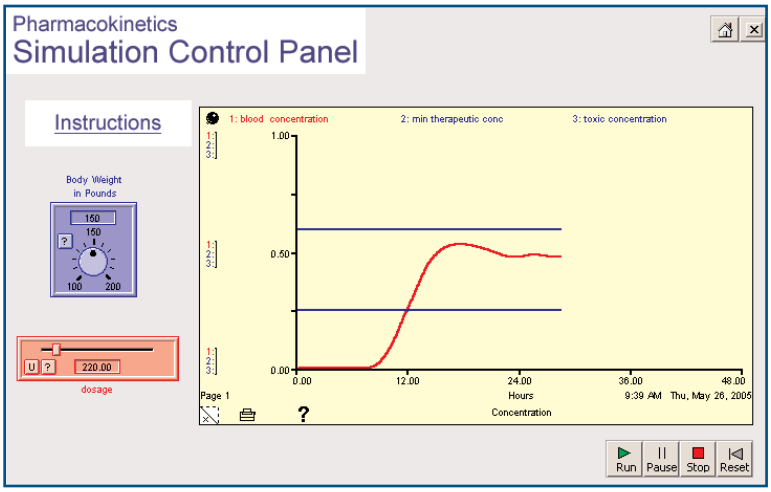
Key Features

Mapping and Modeling

- Intuitive icon-based graphical interface simplifies model building
- Stock and Flow diagrams provide insight into how systems work
- Enhanced stock types enable discrete and continuous processes with support for queues, ovens, and enhanced conveyors
- Model equations are automatically generated and made accessible beneath the model layer
- Built-in functions facilitate mathematical, statistical, and logical operations
- Arrays simply represent repeated model structure
- Sub-models support hierarchical model structures

Simulation and Analysis

- Simulations "run" systems over time
- Sensitivity analysis reveals key leverage points and optimal conditions
- Partial model simulations focus analysis on specific sectors of the model
- Results presented as graphs, tables, animations, QuickTime movies, and files



Dashboards bridge the gap between theory and reality

Communication

- Flight simulators and dashboards describe model components and facilitate manipulation
- Input devices include knobs, sliders, switches, and buttons
- Output devices highlight outcomes with warning flashers, text, graphs, tables, and reports
- Storytelling supports step-by-step model unveiling
- Sketchable graphs allow easy comparison of expected results with actual simulations
- Save as Runtime option creates full-screen, runtime models
- Multimedia support triggers graphics, movies, sounds, and text messages based on model conditions
- Model security features allow locking or password protection

System Requirements

Windows PCs Recommended

233 MHz Pentium

Windows 98/2000/XP (English Version)

English version only

64 MB RAM

70 MB hard disk space

16-bit color

Soundblaster-compatible sound card

QuickTime 4 or greater

Macintosh Recommended

120 MHz PowerPC

Mac OS 9.2.2 or higher (English Version)

128 MB RAM

70 MB hard disk space

Thousands of colors

Quicktime 4 or greater

isee systems™

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isee systems (formerly High Performance Systems) is the world leader in Systems Thinking software. Founded in 1985, isee developed STELLA, the first software to bring Systems Thinking to the desktop. In addition to STELLA, which is used primarily by educators and researchers, isee offers *iThink* for business simulation. isee is a privately-held company with substantial global reach in business, education, and government markets.