

The AEGIS Technologies Group Announces acslX Product Line Enhancements to be Previewed at 2009 SOT Conference

Huntsville, Alabama – February 9, 2009. The AEGIS Technologies Group, Inc., a leading supplier of simulation software, training, and engineering services to the international modeling and simulation community, will preview a variety of new additions to the acslX family of continuous simulation tools at the 2009 Society of Toxicology Annual Meeting in Baltimore, Maryland on March 15-19, 2009.

Features to be demonstrated at SOT include utilities for global sensitivity analysis, linear analysis and new Markov Chain Monte Carlo (MCMC) analysis capabilities. A new version of acslX which uses a streamlined workflow and tight integration with web-based model content will also be shown, as will a version of acslX which is hosted on the Amazon Elastic Compute Cloud and available as an on-demand computing resource.

Specific product enhancements are summarized here. Preview demonstrations of all of these features will be available at the conference in the AEGIS Technologies booth.

Global Sensitivity Analysis

A collection of M functions is now included with the acslX Optimum suite of tools which implements Global Sensitivity Analysis (GSA) using the Fourier Amplitude Sensitivity Test (FAST) and Extended Fourier Amplitude Sensitivity Test (EFAST) techniques. These algorithms estimate model output variability arising from variation in model inputs over the entire parameter space, and account for second and higher-order interaction effects between the parameters. The GSA functions complement the local sensitivity analysis features which have been part of acslX Optimum since the initial release.

Linear Analysis

M functions for linearization and analysis of models developed in acslX are now available, including functions for the following:

- Computation of Jacobian elements (model state space) using numerical differentiation
- Conversion to/from multiple model representations: state space, transfer function, zero-pole-gain
- Generation of Bode, Nichols and Nyquist plots
- Conversion between various units: gain/decibels, radians/degrees
- Performing trim of system (i.e., adjust states to drive derivatives to zero)

New MCMC Capabilities

A new modeling language is available in acslX which extends the M language with operators for designating models based on statistical distributions. These statistical models are sampled using the acslX MCMC functions. Newly added MCMC samplers in acslX include Adaptive Metropolis, Delayed Rejection, and Differential Evolution Monte Carlo.

Streamlined acslX User Interface

A new version of acslX featuring an alternative, streamlined user interface will be previewed at SOT. This version of acslX will provide an alternative to the full Integrated Development Environment and will allow users to create, build and execute models without creating a workspace or project. Model files may be downloaded from websites and results plotted with only a few mouse clicks. An integrated web browser allows seamless integration of the simulation environment with web-based modeling resources.

Cloud-based Computing using acslX

Versions of acslX are now hosted on the Amazon Elastic Compute Cloud. This provides an on-demand capability for running computationally intensive acslX analyses using the Amazon Compute Cloud. This additionally provides a platform by which custom-configured systems (e.g., multiprocessor systems) or custom acslX builds can be made available to users. Compute time on the Amazon Cloud using acslX resources is purchased on-demand and on an hourly basis.

For additional information regarding any of these items, please contact AEgis at the address above, or Conrad Housand (chousand@acslx.com) directly at 407-380-5001.

About AEgis

The AEgis Technologies Group, Inc. provides next-generation modeling and simulation (M&S) software for the pharmaceutical/risk assessment, industrial process, automotive, and military/aerospace markets. AEgis supports its customers with software, training, and consulting services throughout Europe, Asia, and The Americas. AEgis corporate headquarters are located at 631 Discovery Drive, Huntsville, AL 35806; Tel: 256-922-0802; Fax: 256-922-0904; Web: <http://www.acslx.com>.

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