

## StochSS: An Integrated Development Environment for Simulation and Analysis of Discrete Stochastic Biochemical Models

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We present StochSS: Stochastic Simulation as-a-Service, an integrated development environment for modeling and simulation of discrete stochastic biochemical systems. An easy to use GUI enables researchers to quickly develop and simulate biological models on a desktop or laptop, which can then be expanded or combined to incorporate increasing levels of complexity. As the demand for computational power increases, StochSS is able to seamlessly scale up by deploying cloud computing resources. The software currently supports simulation of ODE and well-mixed discrete stochastic models, as well as parameter estimation of discrete stochastic models. Simulation of spatial stochastic models will be available in the September 2014 release. StochSS is available for download at [www.StochSS.org](http://www.StochSS.org).