

## Agent Simulation Toolkits Overview

If you miss a specific agent simulation toolkit in this list we are happy if you could add it. For this you only need to register at this Wiki and can then help improve the completeness.

### Repast

[Repast](#)

Repast Symphony is a free and open source agent-based modeling toolkit that simplifies model creation and use. Repast Symphony offers users a rich variety of features including the following: Fluid model component development using any mixture of Java, Groovy, and flowcharts in each project; A pure Java point-and-click model execution environment that includes built-in results logging and graphing tools as well as automated connections to a variety of optional external tools.

[SeSAM](#)

[SimSeSAM](#)

SeSAM (Shell for Simulated Agent Systems) provides a generic environment for modelling and experimenting with agent-based simulation. We specially focused on providing a tool for the easy construction of complex models, which include dynamic interdependencies or emergent behaviour.

[NetLogo](#)

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NetLogo is a cross-platform multi-agent programmable modeling environment. NetLogo was authored by Uri Wilensky in 1999 and is under continuous development at the CCL (the people who brought you StarLogoT). NetLogo also powers the HubNet participatory simulation system. NetLogo is free of charge.



[StarLogo TNG](#)

StarLogo TNG is The Next Generation of StarLogo modeling and simulation software. While this version holds true to the premise of StarLogo as a tool to create and understand simulations of complex systems, it also brings with it several advances.



[Swarm](#)

Swarm is a library of object-oriented classes that implements the Swarm conceptual framework for agent-based models and provides many tools for implementing, observing, and conducting experiments on ABMs. Users write their own software but (a) follow Swarm's conceptual framework and conventions to design the software, and (b) use the Swarm libraries to do much of the work. The library is written in Objective-C, an object-oriented extension of the C programming language.

[Mason](#)

MASON is a fast discrete-event multiagent simulation library core in Java, designed to be the foundation for large custom-purpose Java simulations, and also to provide more than enough functionality for many lightweight simulation needs. MASON contains both a model library and an optional suite of visualization tools in 2D and 3D.



[Breve](#)

Breve is a free, open-source software package which makes it easy to build 3D simulations of multi-agent systems and artificial life. Using Python, or using a simple scripting language called *steve*, you can define the behaviors of agents in a 3D world and observe how they interact. *breve* includes physical simulation and collision detection so you can simulate realistic creatures, and an OpenGL display engine so you can visualize your simulated worlds.

[James](#)  
[James II](#)

James II is a flexible, extendible and reusable simulation framework. It supports any modeling formalism/paradigm as well as simulation methodology. There are already more

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than 200 extensions supporting several modeling formalisms, simulation algorithms, and many more simulation related stuff.