“AnyLogic 7.2 New Features” Webinar
Q&A

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Can the Fluid library components be used to do flow models in telecommunications networks, calculating things like latency?

- Yes, Process Modeling Library and statecharts allows to simulate such processes and its actors. There are example models: Call Center and Cell Phone Users and Network Capacity.

But what about geographic simulations for telecom?

- GIS feature can be combined with the process modeling library and agent based approach. For instance, you may optimize the number and layout of the cellular phone base stations using GIS data. Both stations and users are agents. Find research about capabilities of GIS+AB approach at http://www.css.gmu.edu/andrew/pubs/chapter12.pdf

Why would you use system dynamics here instead of just a statistics continuous?

- This question answered partially at the end of the webinar. System dynamic part of the agent, can communicate with the statechart continuously and, therefore, has the most accurate update.

How do you decide the value of parameters in the system dynamic of agents? Are they assumptions or calibrated in a study?

- The values in the model are an assumption, but you can set them based on a particular study or calibrate (calibration experiment in AnyLogic) them to historical data as well.

How to use UML models for starting the building of simulation?

- UML model can be implemented in AnyLogic using the statecharts, transitions, flowcharts and events. The data structure can be implemented in built-in database, used for creation of the respective agent types.

Can I query from database logs while model is running? For example, can I extract the distance an agent has moved so far by accessing the agent_movement_stats_log table?

- Log is created at simulation end. As an alternative, you can create a custom tables in the database, and write data to them using INSERT and UPDATE queries. These tables are accessible at model run.

Is New Fluid Library useful for network logistic for crude oil?

- Yes, it is very useful, since the library simulates oil flows on continuous basis. Previously, we used to simulate such network through Process Modeling Library, that works with discrete entities. The Fluid library also simplifies the flowchart logic and makes the implementation more intuitive. You may find the example model Crude Oil Pipeline Network that illustrates the capabilities of Fluid Library.

Is it possible to store the output data directly into sql database?

- Yes, AnyLogic allows to write data using INSERT and UPDATE queries. Also, log is the part of the built-in database, that collects the output automatically.

I noticed that a conveyor was used in place of a pipe (it was liquid being transported). could i inherit from the conveyor to make a pipe object and change the icon to look like a tube, or do you have a pipe object?

- Yes, there is a pipe object. You may find it at Fluid library tab or at Space Markup tab.

Thank you!

Our website: AnyLogic.RU
Models online: RunTheModel.com
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