Using the Data Generator, Version 2.0 & 2.1

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Starting Phase

After the data generator has been started, it first reads the network files. The text "read and create network …" is shown as status while the files are read and the network is being constructed. After constructing the network, it is visualized as a map.

Generator Operations

Input fields

Text	Meaning
obj./begin (M) (left input field)	*Defines the number of moving objects generated at the beginning.*
obj./begin (E) (right input field)	*Defines the number of external objects generated at the beginning.*
obj./time (M) (left input field)	*Defines the number of moving objects generated per time stamp.*
obj./time (E) (right input field)	*Defines the number of external objects generated per time stamp.*
classes (M) (left input field)	*Defines the number of classes of moving objects.* After generating data, this value cannot be modified (for a change, a restart of the generator is required).
classes (E) (right input field)	*Defines the number of classes of external objects.* After generating data, this value cannot be modified (for a change, a restart of the generator is required).
maximum time	*Defines the number time stamps.* After generating data, this value cannot be modified (for a change, a restart of the generator is required). If this field has been changed before the network is completely loaded, the generation of objects starts automatically.
report probability	*Defines the probability of reporting a moving object.* After generating data, this value cannot be modified (for a change, a restart of the generator is required). 1000 means that a moving object is reported at every time stamp during its move. 500, e.g., means that an object is reported with a probability of 50%.
max. speed div.	*Defines the speed of the moving objects.* The larger this value, the slower the moving objects. The value must be 1 or larger. The sum of the x- and y-extension of the data space is divided by this value for determining the maximum speed of the objects.

Buttons

Text	Meaning
Compute	*Generates new objects.* While the generator is computing the objects and their positions, the current time stamp is depicted by a numerical value and by the position of the scrollbar. When the computation is finished, the scrollbar is again on its left position (time = 0) and the positions of all objects of all time stamps are depicted in the map.
Time +	*Increases the visualized time stamp.* If a time stamp > 0 is chosen, only the objects at this time stamp are visualized.
Delete Obj.	*Deletes the generated objects.* The generated files are not affected. It is recommended to restart the generator after a generation.

Scrollbar

The scrollbar allows setting the visualized time stamp after the generation of objects. At the left position, the time stamp is 0 and all moving objects of all time stamps are depicted in the map. Otherwise, only moving objects and external objects at the chosen time stamp are visualized.

Map Operations

Buttons

Text	Meaning
Zoom In	*Enlarges the map scale.* The zoom factor is 2 and the zoom tries to keep the center of the map. The visibility of edges depends on the current scale.
Zoom Out	*Reduces the map scale.* The zoom factor is 2 and the zoom tries to keep the center of the map. The visibility of edges depends on the current scale.
W	*Moves the map to the west* (to the left).
E	*Moves the map to the east* (to the right).
N	*Moves the map to the north* (up).
S	*Moves the map to the south* (down).

Mouse Cursor

Action
Clicking on the map with pressed shift key. This position will be the new center of the map (if possible).
Dragging a rectangle with the pressed mouse button. The center of the rectangle will be used as new center of the map (if possible) and the map scale will be enlarged by a zoom factor of 2 (if possible).