Basic example readme:
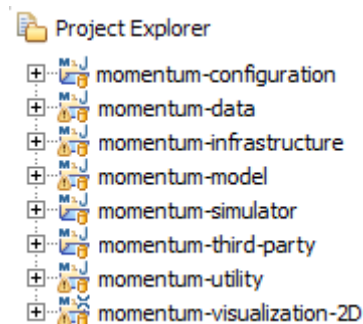
Goal

This readme file should help you to run and visualize the basic example of MomenTUM:
MomenTUM/momentum-documentation/UserGuide/startHere/BasicExample/

Eclipse workflow

Preconditions

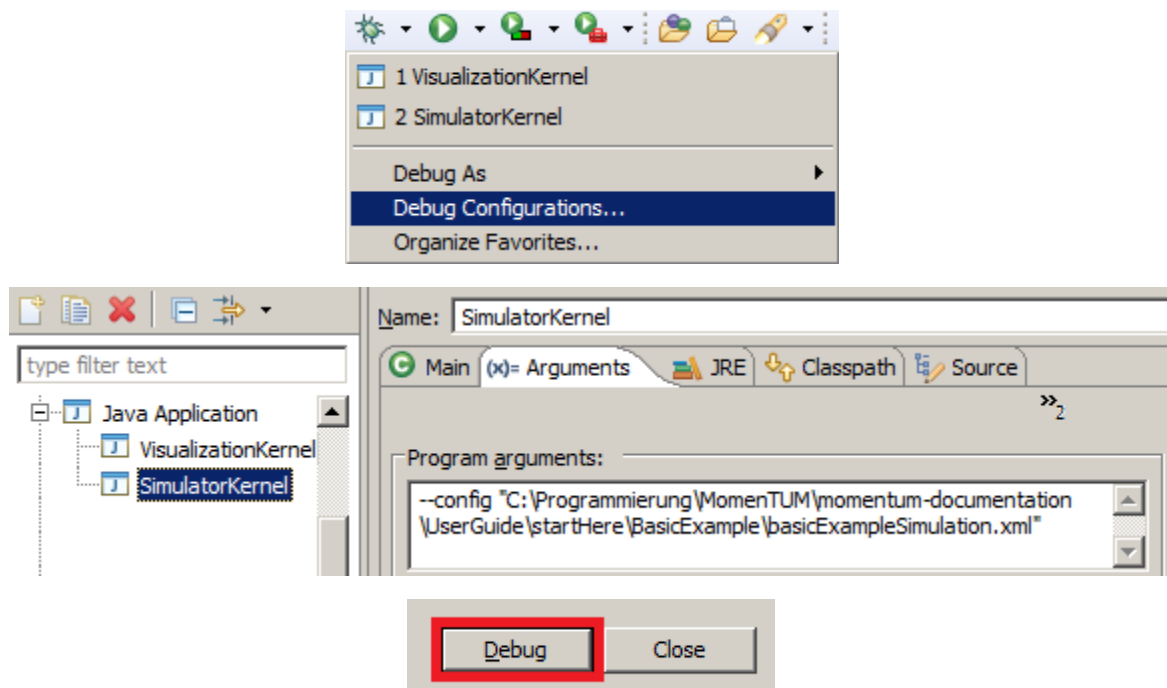The MomenTUM projects were imported in your eclipse workspace and no errors are shown.

Configuration

Open the file basicExampleSimulation.xml and change the file paths to comply to your file system:
<scenario id="0" layoutLink="Path to basicExampleLayout.xml"/>
<entry file="Path to basicExampleODMatrix.csv" separator=";"/>
<entry file=" Path to basicExampleUPRM.csv" separator=";"/>

Run simulation

In Eclipse, run the momentum-simulator project
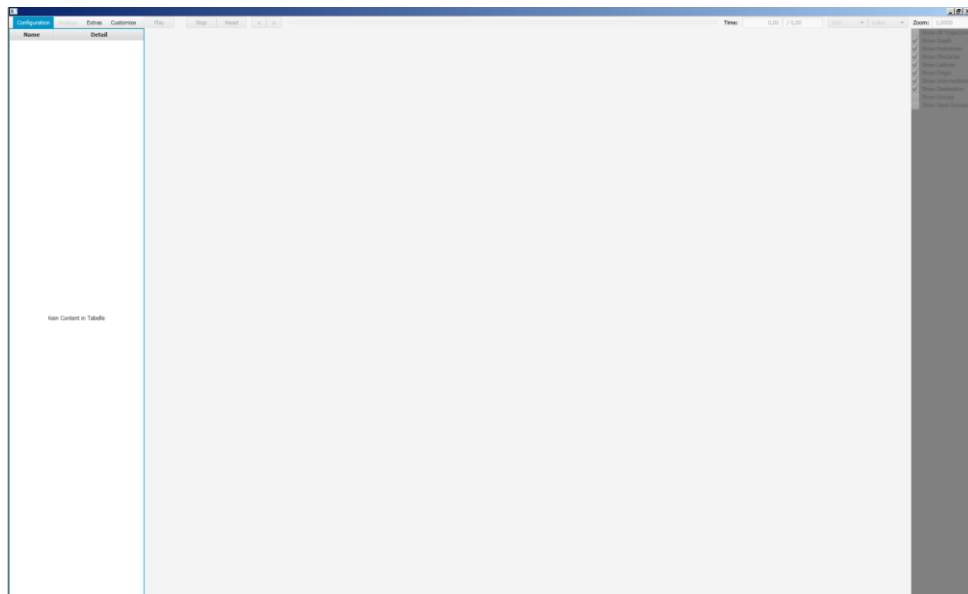(tum.cms.sim.momentum.simulator.SimulatorKernel):

Wait until the simulation is done.

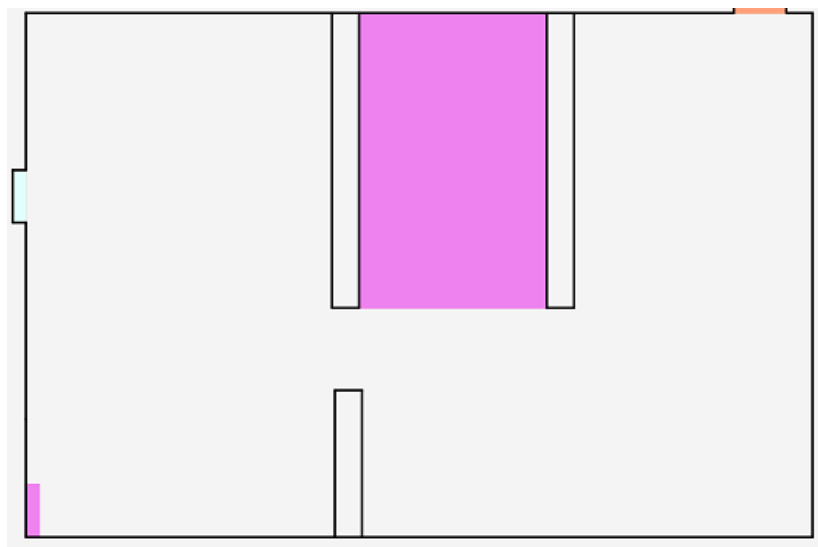The result files are in the momentum-simulator folder:

2017_BasicExample_XT_Density.csv
2017_BasicExample_XT_Density.csv.idx
2017_BasicExample_Pedestrian.csv
2017_BasicExample_Pedestrian.csv.idx
2017_BasicExample_Layout.xml

Start visualization

In eclipse, run the momentum-visualization-2D project without arguments (tum.cms.sim.momentum.visualization.VisualizationKernel):
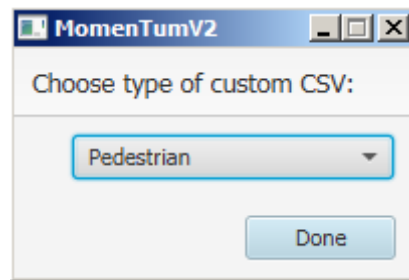

Select the layout file 2017_BasicExample_Layout.xml (configuration -> load layout). Zoom in with the mouse wheel and drag drop with right-click to have a nice view on the layout. You can press (i) for a 3D view and rotate using the arrow keys. Press space for resetting the layout position:
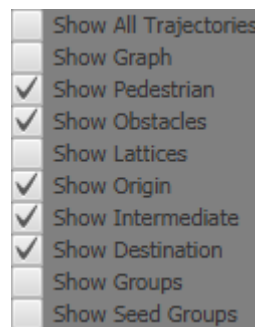
Select the pedestrian output file 2017_BasicExample_Pedestrian.csv (configuration -> load csv output) and select the 'Pedestrian' type in the drop down box.

Hide some of the simulation elements to provide a clear view on the pedestrians.

You can hit play and take a look at the visualization.

Show pedestrian movement and density data

In case your visualization is still running. Restart the Visualization or press ctrl+u.
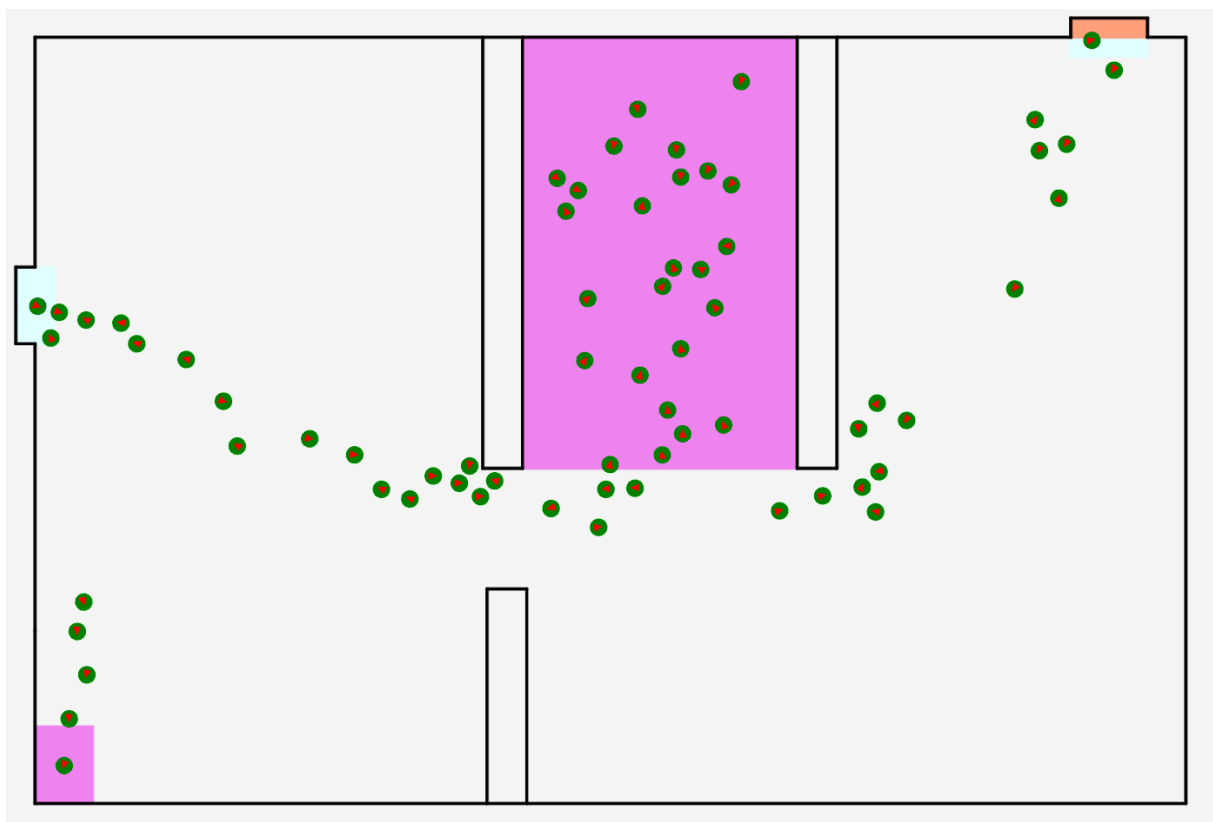
Again, load the layout file (ctrl+y)

Select the pedestrian output file 2017_BasicExample_Pedestrian.csv (configuration -> load csv output) and select the 'Pedestrian' type in the drop down box. (ctrl+s)

Loading the pedestrian data is mandatory!

Select the pedestrian output file 2017_BasicExample_XT_Density.csv (configuration -> load csv output) and select the 'xtDensity' type in the drop down box. (ctrl+s)

Important: The density data comprises quite a lot of data points. Use the step by step button for the visualization. Use the density visualization with care and remove the density analysis and output writer in the configuration to stop the density computations.