The model reads the parameters of the simulation from the csv file named inputIntrTransp3 that should be in the project’s folder. InputIntrTransp3 can be generated from an excel file where a short description of all the input parameters is provided (InputIntrTransp3.xlsm).

To start a simulation, the model can generate organelles with the properties specified in inputIntrTransp3.csv. Another possibility is to use frozen organelles (coming from a previous run). For that, the organelles are loaded from the file InputFrozenEndosomes.csv that should be in the project’s folder (see below where to find the frozen organelles from previous runs).

The simulation is started from the Repast GUI.

The output of the simulations can be found in the project’s folder as csv files.

The csv output files are:

1-ResultsIntrTransp3.csv. It contains the distribution of the cargoes in the different membrane domains along the simulation

2-ResultsMarker. It contains the properties of the organelles visited by the marker during the simulation.

3- cisternsArea.csv. It stores the area of the cisternae along the simulation.

4- totalRabs.csv. It contains the total membrane domains along the simulation

5- outputFrozenEndosomes.csv. This file stores the set of organelles present in the model every 5000 ticks. The properties stored are the ones required for InputFrozenEndosomes.csv. Hence, this is the source of organelles that can be rescued for future use. Since this file is not deleted at the end of the simulation, it stores organelles forever and it should be deleted manually from time to time.