Introduction to GAMA-platform Evacuation of Phuc Xa

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Objective

The objective of this exercice is to simulate the inhabitants' evacuation of the Phuc Xa ward in case of a crisis (e.g. flood).

Build this model requiers two steps:

- inhabitants daily activities:

    - Inhabitants have a house (building) and a working place (building)

    - At 7AM, they will go to their work; following the road network, stay at their work until 5PM and then go back home

- Inhabitants reaction to the crisis:

    - A crisis occurs in the middle of the day. All the inhabitants will get this information at the same time.

    - When an inhabitant knows there is a crisis, it will go to the closest evacuation point.

We want to be able to plot the number of evacuees, the time to evacuate…

We also want to compare the evacuation time depending on the crisis occurrence hour … and any other indicators.

To go further, we can also simulate the flooding (each simulation step the river will increase its shape, using buffer operator).

Available data

- Buildings
- Roads
- Evacuation points
- Red river