

The BabyLOV Software

This BabyLOV software is essentially the same as that described in the chapter **Planning Visualization and Assessment: A Cellular Automata Based Integrated Spatial Decision Support System**. It is a cellular-automaton based, dynamic land use simulation model of the Green Heart region of The Netherlands.

In this model long term land use demands are entered as scenarios. The resulting land use patterns reflect attraction and repulsion effects among the various land uses, as well as underlying suitabilities, zoning and land use regulations, and differences in accessibility to the transportation network.

The model permits a wide variety of “what if” experiments to be performed, since land use demands, suitabilities, zoning, both the transport network itself as well as accessibility parameters, and even the CA transition rules themselves, can all be modified. In addition, a number of indicators are calculated and displayed as maps or tables in order to facilitate evaluation of the results.

The BabyLOV software is easy to work with. Here are a few guidelines:

1. Open **GEONAMICA**, and then choose one of the simulation scenarios, e.g. *Europe Leading*.
2. The initial land use map is displayed. Other maps, showing suitabilities, zoning, and the transportation network can be viewed by pulling down the **Maps** menu.
3. These maps can all be changed while they are displayed by using the facilities under the **Edit** menu. Note that in order to edit the initial land use, that map must also be selected under **Maps** even though it is displayed initially.
4. The weighting functions representing attraction and repulsion effects among the various land uses can be viewed and edited under the **Rules** menu. For example, the effect of low density housing on services is found by selecting *services* and then, under *services*, selecting *housing, low density*.
5. The Formula for calculating cellular transition potentials can be changed by selecting *Algorithm* under the **Simulation** menu.
6. Selecting **System Window** under the **Window** menu and then clicking on **Land Claims** gives access the land demands assumed in the scenario; the demands can be edited here to construct other scenarios.
7. Also in the **System Window**, **Indicators** can be selected to help in interpretation of the results. These indicators are not computed unless turned on individually. To do so, select an Indicator, e.g. *Job Potential*, and then click *Yes*. Run time degrades as more indicators are selected.

8. Output can be saved as **Excel** files, as **Log Files** of land use maps, and as **Animations** of land use maps. These must be selected under the **Options** menu.

9. Finally, the land use maps saved in **Log Files** can be compared using the **ANALYSE** software.