This means that they have certain *windows of observation* of these changes, i.e. their decision-making and decision to act therefore may refer to different time horizons.These can also vary by agent types or across a certain population of agents.
To address this aspect, in SimAC we introduce the possibility that each type of agent can undertake their evaluation activities considering different time intervals. As a result, the decisions to act, by agent type, does not necessarily occur simultaneously, but may be shifted in time. Although the implemented approach is still a group centred view, it nonetheless allows us to investigate how different time scales in agents' decision-making can affect their outcome in the urban evolution.

5.2 The SimAC computer modules

For the implementation of SimAC three types of computer modules have been developed.

- The first deals with the 'Inhabitants' mental graph'. It accounts for the description of the urban network as perceived by individuals, in moving on it. Each Inhabitant has his/her own mental graph (see eq.1) which is updated every time step of the simulation.
- The second consists of a set of files making it possible to configure a simulation experiment, see Fig. 1b. Besides defining the features of the artificial world, i.e. number of agents and extension of the spatial network, these files also specify:
  - the characteristics of the profiles of the Inhabitant, and Locality agents (i.e. the initial values of the variables used in eqs. 7, 11, 12). As these profiles are individual based, heterogeneous groups of agents and different jobs and work milieu can exist in the artificial world;
  - the structure of the spatial network. Although the grid represents the default spatial configuration, the structure of the network (i.e. number of links and associated travel time) can be specified exogenously;
  - the width of the observation window, considered by Inhabitants, Localities and Whisper in their evaluation activity.
- The last module reports the outputs of the simulation experiment, i.e. the data describing the changes in agents' behaviour, and computes some system indicators (i.e. indices of accessibility potentials and travel times as discussed in Bellomo and Occelli, 2000). The changes occurring in the artificial environment can also be visualized as the simulations run, see Fig. 1c.

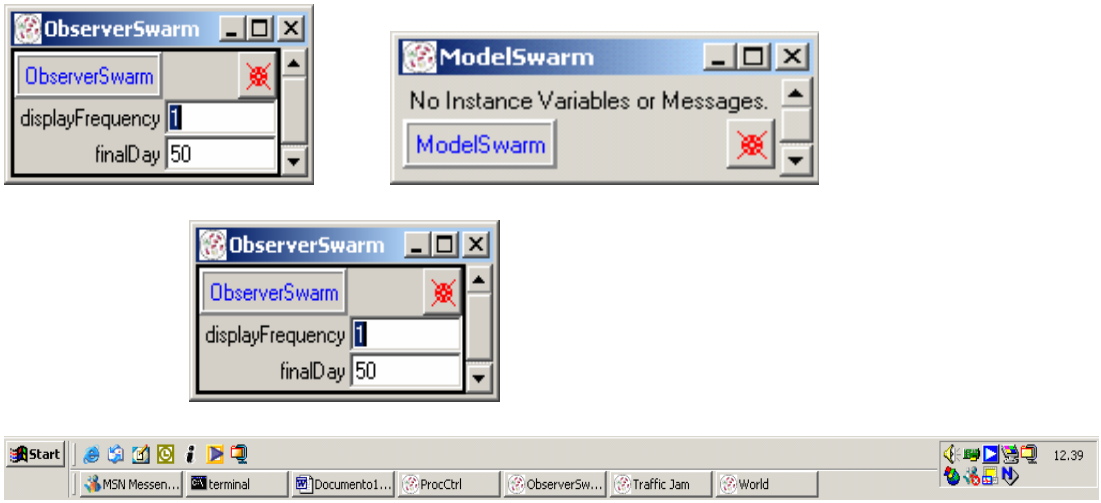

Figure 1b The interface for managing the simulation experiments