Climatizer© Manual

Daniel Dekkers, Anton van Hoorn, Miriam Egas (cThrough)

Climatizer Screen

The Climatizer screen consists of two control windows (A and B), a result window (C) and the earth view window (D).

- Control window A is the main Climatizer window and is used to control the simulation.
- Control window B is used to choose between specific visualisation options.
- Result window C shows the global graphs of three dynamic history curves (global CO_2, global temperature and sea-level).
- Earth view D continuously updates the state of the Earth simulation.

Climatizer Window (A)

The main Climatizer window is divided in four sections:

1. The first section (A1) shows the Climatizer logo and a [New User] button. Pressing this button creates a window with some introductory text. Meanwhile the simulation is reloaded. All settings return to their original positions and the time is reset to the first week of the year 2003.

2. The second section (A2) contains the language toggle. It is possible to choose from three different languages (English, French and Spanish).

3. The third section (A3) contains the time controller. In this section users can influence simulation time. Four buttons are presented that are similar to a standard video-recorder interface:

    The [Restart] button reloads the simulation's default position. All settings return to their original positions and the time is reset to the first week of the year 2003. The [Play] button starts the simulation. If the simulation is already running, this button is disabled (it is visible, but has a grey colour and can not be pressed). The [Fast Forward] button speeds up the simulation. The [Pause] button halts the simulation. Time freezes, giving the user the opportunity to take a more detailed look at any position on the globe, before continuing the simulation.

    Next to the time control buttons the current year and week is denoted. Years run from 2003 to infinity. Every year has 52 weeks. A week is the smallest time interval in the simulation.

4. The fourth section (A4) shows the *interventions*. Interventions are user actions that allow the user to control the situation on the globe. The interventions enable the user to define 'what if' questions. By choosing an intervention and changing it's settings, a different path through time is taken. The intervention secion is divided into a selector region (the upper part) and a details section (the lower part) that summarises the details of the currently selected intervention.

- The selector (upper part) contains a so called tree-view that represents a region hierarchy. Folding and unfolding opens and closes the regions and region data. Top region is the world. The world can be opened to see the continents. A continent can be opened to see the countries. A country can be opened to see a subdivision in counties, etc.
- At every region level, the user can choose from interventions on region growth rates or region autarchy.
- The details section (lower part) shows general information on the chosen intervention and intervention specific interaction elements (sliders, buttons, check boxes). By changing settings, the behaviour of the actors can be changed.
- When the user chooses [datasheet] in the selector tree-view, the details section shows current parameter values for the specified region.
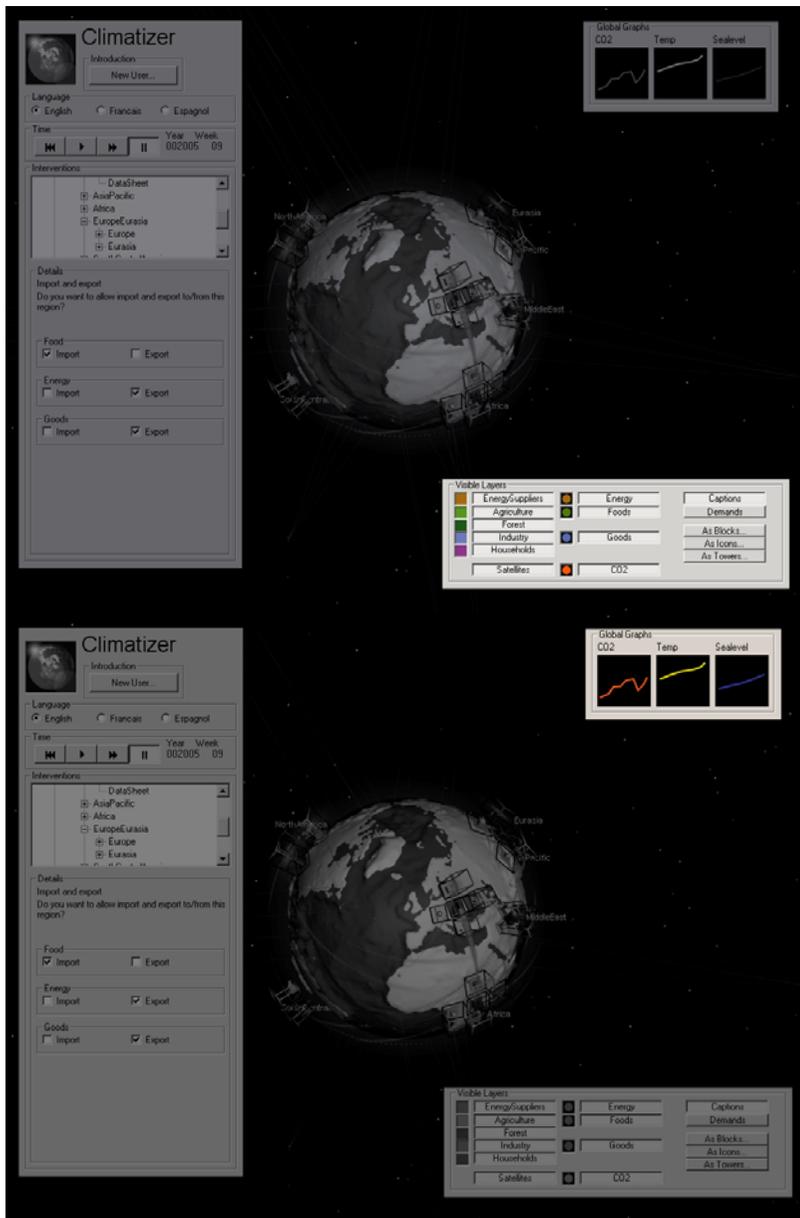
Visible Layers Window (B)

The second window (B) is used to control visibility of layers in the Earth view (D). This should not be confused with adding or removing these elements from calculation. Only visibility is affected, not existence. The visible layers window is divided into three sections:

1. The first section (B1) shows the actors. Actors are the physically static entities of the system: households, industry, forest, agriculture and energy-suppliers.
2. The second section (B2) shows the Intermediates. The intermediates are the entities in the model that represent all moving and/or exchangeable elements: food, goods, energy and CO_2. The intermediates flow from actor to actor.
3. The third section (B3) shows the Extras (B3). [Captions] turns on or of the name-tags on regions. [Demands] turns a demand graph per region on or of. Demands are expressed in the required intermediates and the percentage in which the requirement is met.

Three buttons [As Blocks…], [As Icons…] and [As Towers] enables the user to choose between three different representations of the actors. The data is not dependant on the visualisation. They are separate in essence. So visitors can choose any way to represent the data.

Global Graphs Window (C)

In the global graphs window three results are shown as dynamic history curves: CO_2 (C1), Temperature (C2) and sea level (C3). These graphs start in the default position and are updated while the simulation runs. The most right point of the curve denotes the current situation. Sudden changes in the direction of the curves hint at thresholds in the world resources or at very effective user interventions.
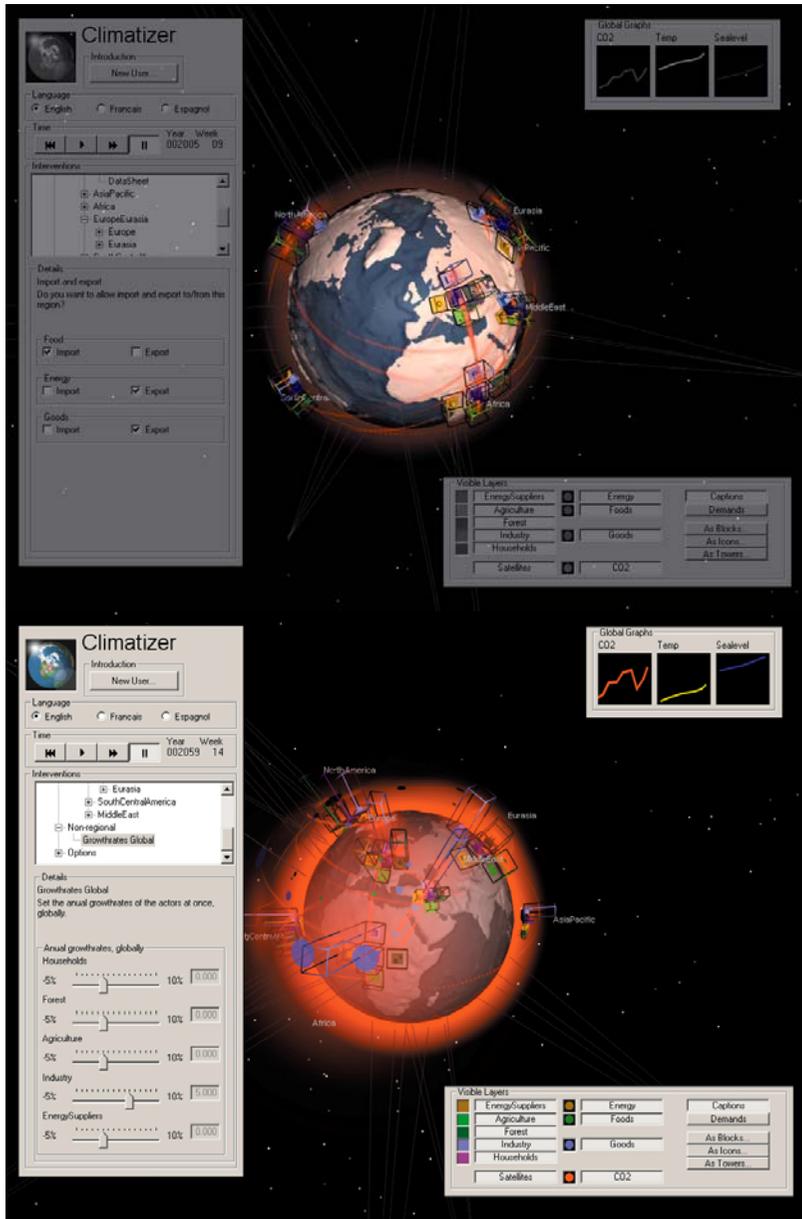
Global view (D)

The Earth view presents visual feedback on the current state of the simulation. The Earth is seen by an imaginary virtual camera. One can rotate the camera by left-clicking the mouse in the Earth View and dragging up/down/left/right. One can zoom in/out by right-clicking the mouse and dragging the mouse up/down. If a region is selected in the intervention selector, the Earth View camera moves to this region automatically.