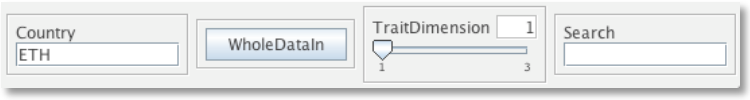
ReadMe for VS VIEWER

'VS Viewer.binary' enables you to gain detailed information about each virtual state on the platform of *artisoc* version 1.0 or later. For information on *artisoc*, please visit Kozo Keikaku Engineering (KKE)'s web site (http://mas.kke.co.jp/, in Japanese).

GETTING STARTED

Open 'VS Viewer.binary' in *artisoc*. To activate the viewer under the specified conditions, click the **Play** button under the menu bar. Click the **Stop** button to deactivate it.

CONTROL PANEL

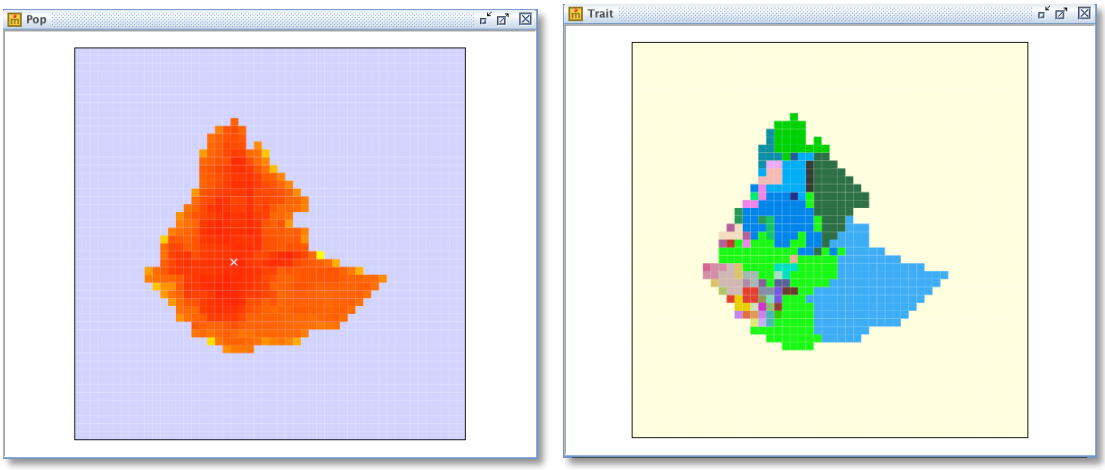


You can control the way the viewer functions through the Control Panel, which consists of the following:

- **Country**: which specifies the virtual state to be explored. Enter any one of the following options in the text box: **ETH** (Ethiopia before the Eritrean independence); **FDRE** (Federal Democratic Republic of Ethiopia. That is, Ethiopia after the Eritrean independence); **KEN** (Kenya); **NSDN** (North Sudan); **SOM** (Somalia); **SDN** (Sudan); and **SSDN** (South Sudan).
- **WholeDataIn**: which specifies whether or not the viewer displays the entire list of socio-cultural traits associated with the virtual state concerned. This includes additional layers of information on the traits' subclasses, such as clans and sub-clans. At present, the inclusion of lower levels of groupings is far from exhaustive, and, therefore, such information should be considered at best provisional.
- **TraitDimension**: which specifies the category of the traits whose spatial distribution is to be shown on the **Trait Map** (see MAPS below). Dimension 1 corresponds to ethnicity; 2 to religion; 3 to region.

- **Search**: which enables you to obtain further information on a specific trait in the category specified in the **TraitDimension** slide bar. Enter the string code of the trait in question (e.g., '02', '93') in the text box. Its spatial distribution over the virtual state's territory is displayed on the **Trait Map** while other non-spatial information such as its name and population are shown on the Output Window.

MAPS



The viewer illuminates aspects of the virtual state's spatial configuration in the form of several two-dimensional maps, including:

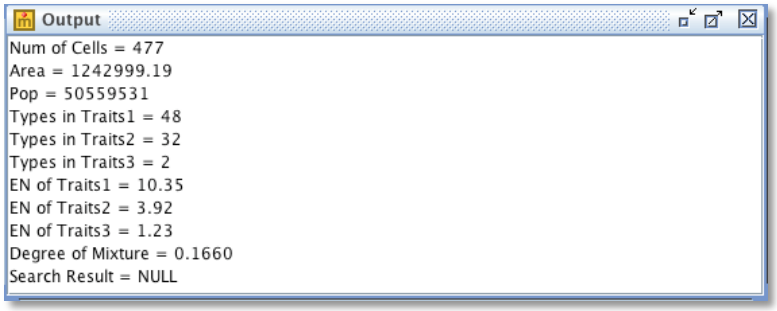
- **Pop Map**: which displays the demographic distribution in the virtual state concerned. The color gradation indicates differences in the numbers of inhabitants on *PopCell*s, with the most reddened cell having the largest number of population.
- **Trait Map**: which displays the distribution of socio-cultural traits in the category specified in the **TraitDimension** slide bar. Each *PopCell* is colored according to the value of its *Traits*. The **PopCell**s that have the trait specified in the **Search** box are colored red.
- **Region Map**: which displays the sub-national administrative units that are used as input, in the case that the *Initial Government* has an arrangement for regional autonomy.

POPCELL INFORMATION

The above maps are interactive: by clicking on any of them, information on the *PopCell* located at the point that is being clicked appears on the Console Screen. The information that is being displayed includes the area; population; and socio-cultural traits found among the inhabitants of the specific *PopCell*. Note that Trait1 is ethnicity, Trait2 is religion, and Trait3 is region. The number in parentheses that accompanies each trait indicates its population ratio. It is possible that a *PopCell* has more than one traits in a given category.

```
******** PopCell Information ********
Coordinates : ( 21,27 )
Area : 3053.359131 km2
Population : 505635
Trait1 : 16[Oromo] (1)
Trait2 : 93[Christian] (1)
Trait3 : 01[Ethiopia] (1)
************************************
```

OUTPUT WINDOW



This window reports various statistics that are characteristic of the virtual state concerned, including:

- **Num of Cells**: which displays the total number of *PopCell*s.
- **Area**: which displays the total area of the territory.
- **Pop**: which displays the total population.
- **Types in Traits**: which displays the number of traits in each category.
- **EN of Traits**: which displays the effective number of traits in each category, which is calculated from its population composition.
- **Degree of Mixture**: which quantifies the extent to which different traits adjoin each other. 0.0 indicates total homogeneity while 1.0 indicates total mixture, where every *PopCell* is surrounded by neighbors that have entirely different *Traits*.
- **Search Result**: which shows the specified trait's name and the total number of inhabitants who share that trait.