The Interactive Water Information and Planning Tool (IWIP) for the Cuvelai-Etosha Basin

formerly: Digital Atlas of the Cuvelai-Etosha Basin


User Manual for Version 1.0 (J. Röhrig et al.)

Introduction

This manual explains the graphical user interface of the Interactive Digital Atlas of the Cuvelai-Etosha Basin and the main functionalities. The content is illustrated by various screenshots facilitating the work and usage of the atlas. More material is available at http://en.geopublishing.org/. The site contains additional information on the software Geopublisher that was used to develop the atlas.

Graphical User Interface (GUI)

The graphical user interface of the digital multimedia atlas consists of three components: the *Main menu* at the top, the *Map display* on the right and the *Legend/Info* of the map on the left.
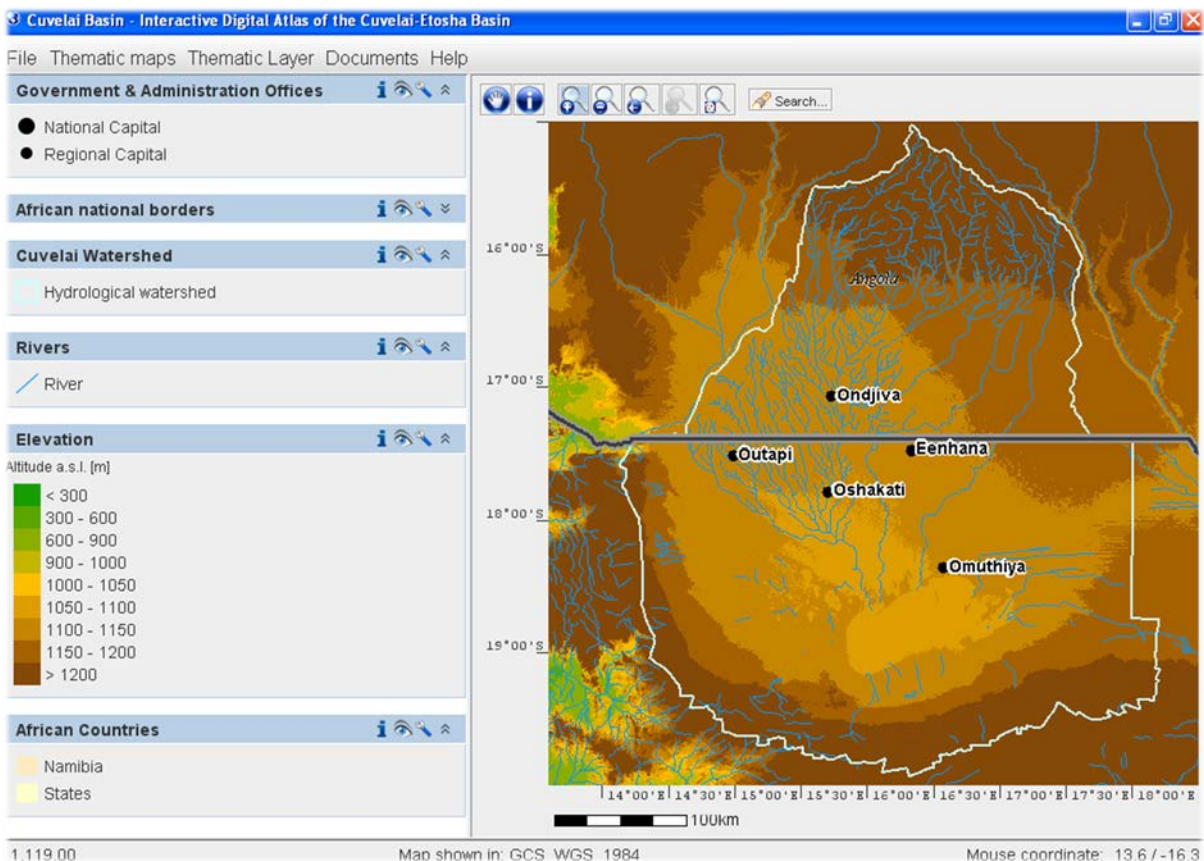
Main Menu

The *main menu* comprises the following submenus: *File*, *Thematic maps*, *Thematic Layers, Documents* and *Help*. They are described below in more detail.

File

Under File, you can define main settings and make actions related to the atlas as a whole. The user can choose following options *e*: *Save screenshot*, *Change language, Open popup-window* and *Exit*. *Download whole atlas* is only available for online versions.
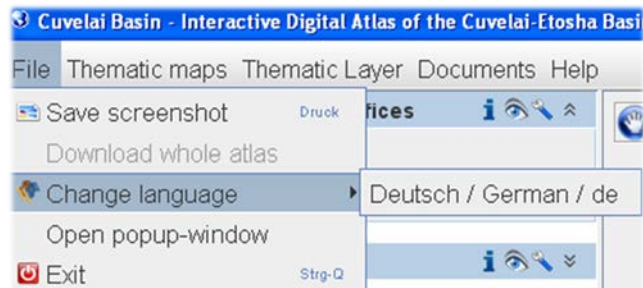
Save screenshot

By selecting *Save screenshot* the user can create a copy of the displayed map and save it locally as an image (PNG file). The user can therefore choose one out of three different screenshots: 1. a map section with legend, 2. a map section with coordinate system and scale, and 3. a map section without further additions.

Change language

The user can change the output language at any time with the command *Change language*. In doing so, you can switch between the German and English version of the atlas. Further languages might be implemented in a follow-up version.

Open popup-window

By selecting Open popup-window the start screen opens again.

Exit

By selecting *Exit* the user can end the atlas. Attention: Any changes made by the user will not be saved! After rebooting the original settings will be displayed.

Thematic maps, Thematic Layers and Documents

The three menu items can be used to select und display different contents: Pre-defined maps, single layers or documents. The atlas contains several pre-defined maps that can be seen and selected within the menu *Thematic maps*. The maps offer different themes distinguishing *Nature* and *People*. The spatial focus of the maps is on the Cuvelai-Etosha Basin. Several maps, however, contain information for larger areas, such as Namibia depending on data availability. Each map consists of a combination of single, thematically suitable map layers. The map layers can also be selected individually from the *Thematic Layers* menu and added to the current map. *Documents* contain different PDF-files that provide more detailed information about some themes embedded in the atlas.
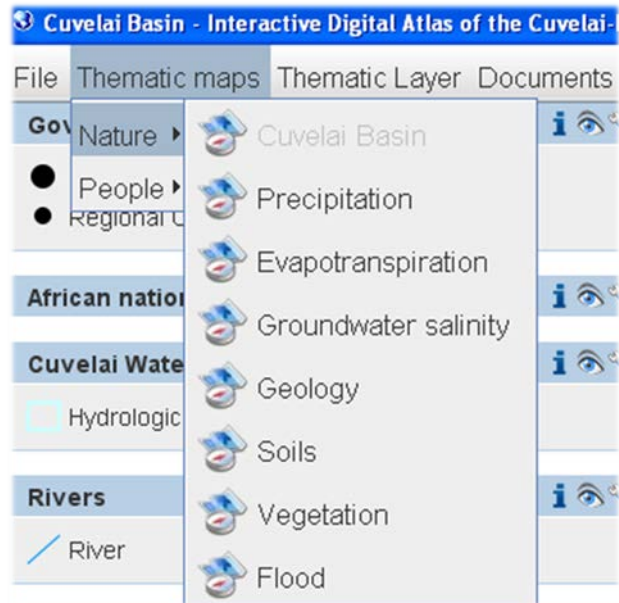
Help

By choosing the menu *Help* you can deactivate the default setting *Draw "softer" maps*. That way the maps will be processed without anti-aliasing algorithm which causes a loss in optical quality but enables a more rapid display of the maps. The submenu *About Interactive Digital Atlas of the Cuvelai-Etosha Basin* provides main information on the current Atlas version.

Map display

The Map display illustrates the selected map from the thematic group (in the illustration example: Cuvelai Basin) and when indicated, extended by additional map layers. Next to the map, a coordinate grid as well as a scale bar are displayed. In addition, the location of the mouse is shown on the right bottom of the window (Mouse coordination). The unit corresponds to the coordinate system that is used in the atlas.
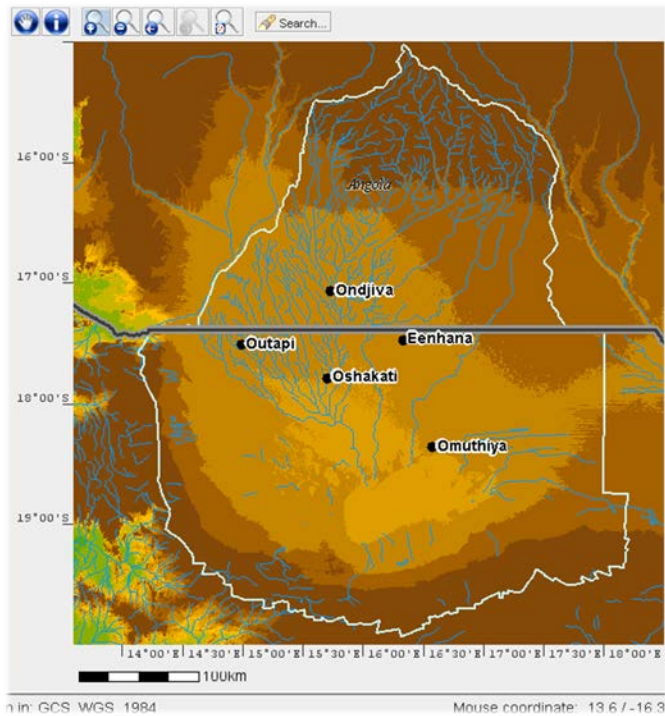
Toolbar

Above the map menu bar is a toolbar with different functions that can be executed within the map window. For using them, click on a button which will change its color signalising that this function is activated. Afterwards move the cursor to the area on the map, and then click again to execute the function.

Pan

The *pan* allows the user to spatially shift the map section by dragging.

Info

By selecting *Info* additional information/attributes are displayed in the map window. Move the cursor to the exact area on the map that you would like to know more about. Click again, and a window will open with additional information. This information could be numbers, pictures or diagrams. Linked documents (as illustrated in the figure on
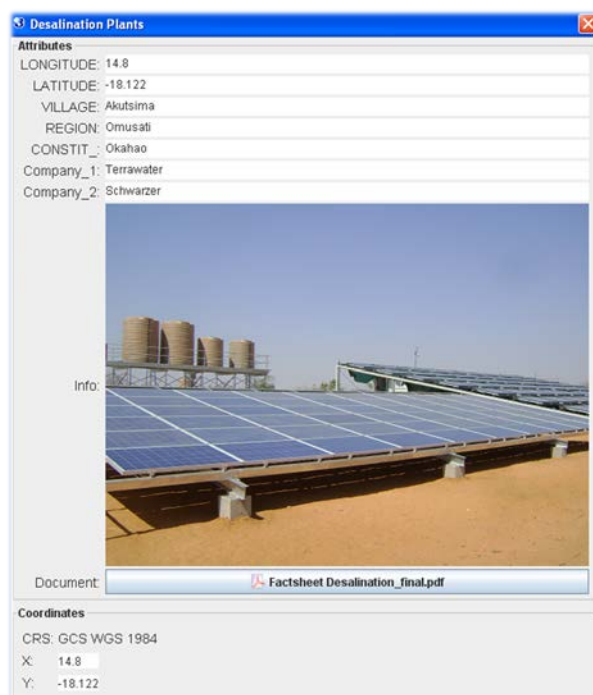
the right hand-side) can be opened by double-clicking the button with the file name. Furthermore, the coordinates of the location are shown.
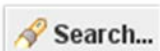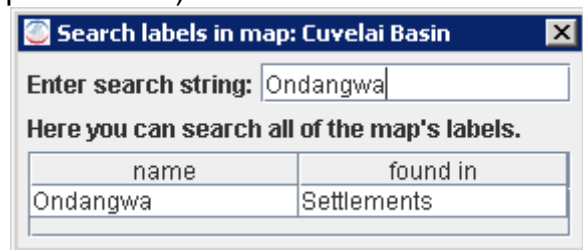
Zoom In/Out

The *Zoom In/Out* allows the user to zoom in and out on the map by clicking a point or dragging a box.

Arrows

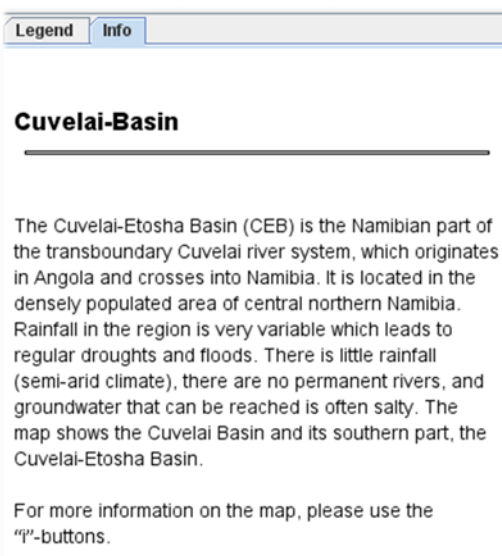The two *arrows* are used to go back or forward to the previous display of the map.

Search

By clicking on *Search* a new window opens. The user can search for terms of the attribute table (e.g. place name). If the search word occurs several times in the map, a list of available entries is opened with information in which folder they can be found. By clicking on one of the entries, the atlas zooms on the selection in the map.

Legend / Info

Info

The *Info* tab includes some general information on the selected topic (e.g. Cuvelai-Basin or Demography) as well as a brief description of map elements.

Legend

The *Legend* manages order and visualization of each map layer within the current map display. The illustration of the layers works in accordance to the legend (from top to bottom). The order of a map layer can be modified with the mouse by 'Drag and Drop'.

While creating an atlas, several individual maps can be applied to one map layer. In this case, the different maps are displayed as tabs or scrollbars (if there are more than three maps). The user can select the desired map by clicking on the associated layer name.
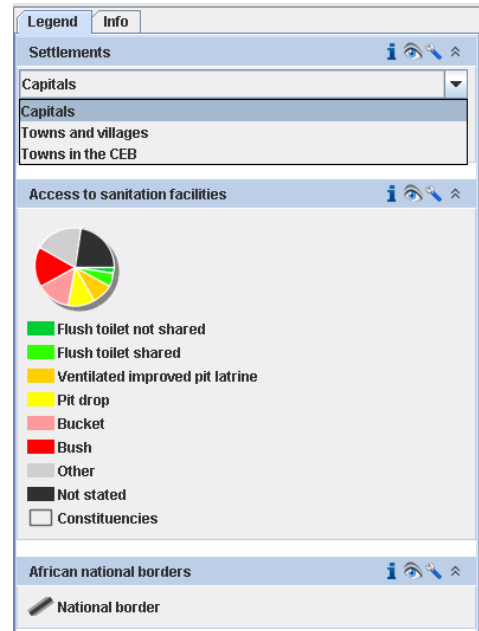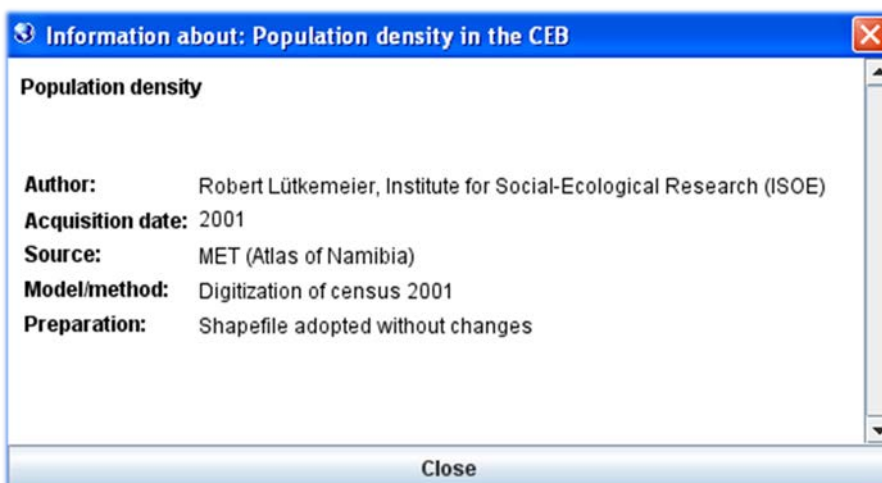

Taskbar of a map layer

Every map layer consists of a *taskbar* with the following functions: *Info*, *eye*, *tools* (with additional functions) and *show legend*.

Info

The user obtains metadata with information about the person(s), methods and data used for the layer by selecting *Info*.
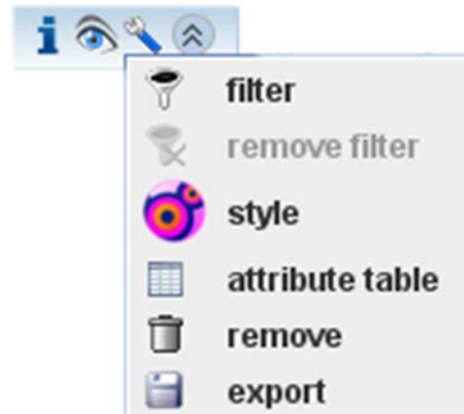

Eye

Under the submenu *Eye* the user can decide whether this map layer should be displayed in the map or not.

Tools

Tools 🔧 contain specific layer functions like *filter, remove filter, style, attribute table* and *remove*. For some layers the *export* of this data set is also possible.
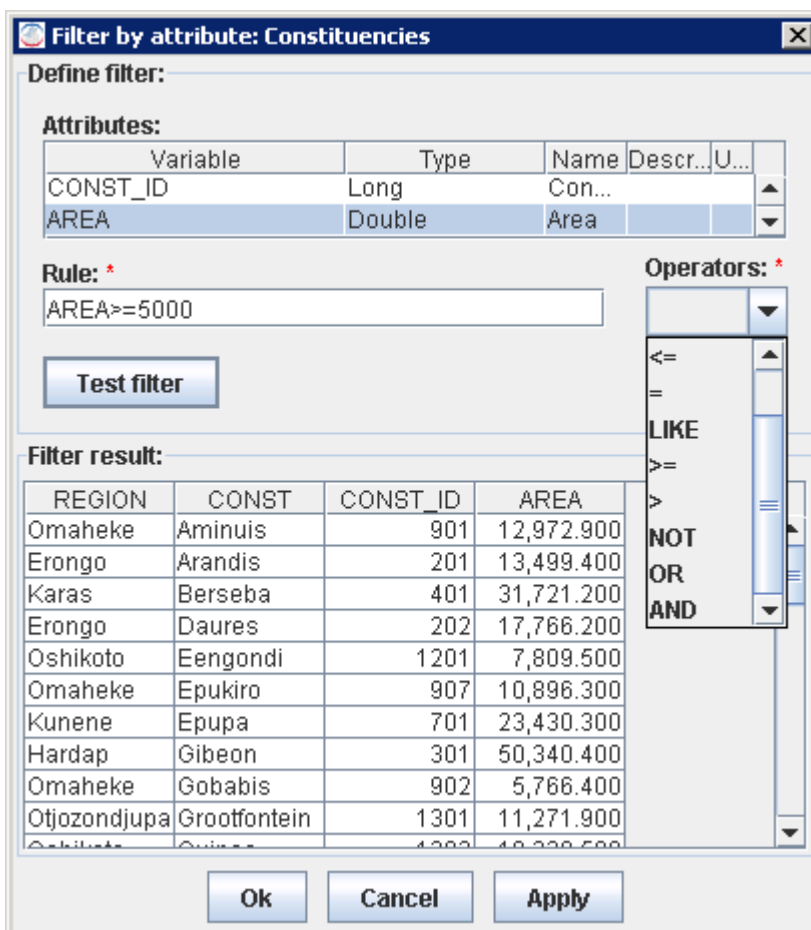

Filter 🔻

The *filter* allows reducing the displayed map content according to defined rules. The filter is individually defined and applied in the *filter window*. After the use of a filter, only the filtered objects will be visualised.

Filter Window

In the *attribute table* all possible variables of the layer, for which a filter can be used, are displayed (including property). The filter can be defined below *Rule*: by double clicking on a variable, it is taken in the formula field. Now the user chooses the desired operator from the list of *Operators*. It is up to the user to define an own operator or choose one of the lists. Finally, a value or a range of values must be defined. The value can be a name (file type: string) or a number (file types: Integer, double, long). If the filter is based on names, it must be put in inverted comma ('…').

After defining a filter, the user can check the validity of the rule. If the filter is correct, the table will change. If there is any error in the filter, an error message will appear. Thus, the rule must be adjusted. If the filter is correct, it can be applied by clicking on *Apply*.

Remove filter

Remove filter 🥄 eliminates a filter.

Style

Using *style* 🎯 the visual representation of the map layer can be changed. Different possibilities of modification will then be available (e.g. modification of colour, of number or frontiers of classes). In addition, the user can visualise or change a description of the objects within the map display under *Labels*.
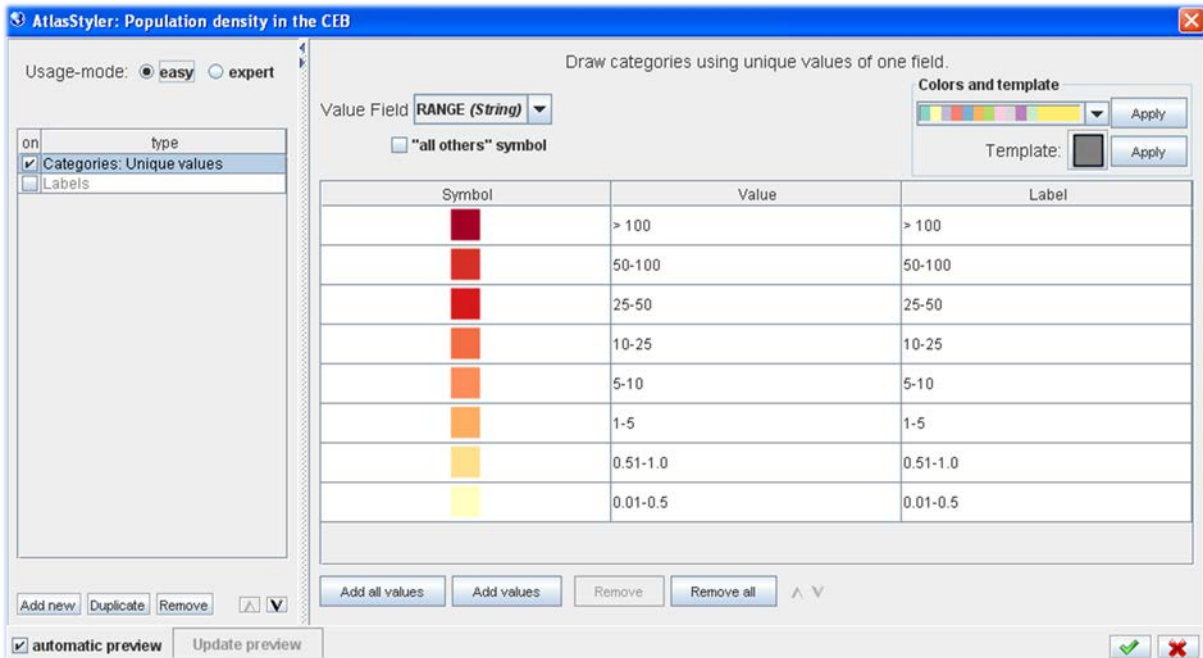
Attribute table

The *attribute table* 🗔 contains all attributes of the map layer that are shown or can be edited.

Remove

The submenu *Remove* 🗑 deletes the map layer of the current map display.

Show legend

If the user deactivates 'show ⌄ , ⌃ legend', the legend of map layer disappears. The layer, however, remains visible in the map window.