

CentropeSTATISTICS – Interactive Creation of Maps and Charts

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1 INTRODUCTION

The Centrope region is situated at the mutual borders of Austria, the Czech Republic, Hungary, and Slovakia. Its aim is to foster cultural, ecologic and economic development in an area that had to suffer enormous disadvantages during the decades of existence of the Iron Curtain and is now ready to catch up.

To help planners and stakeholders to get an overview of the Centrope region, the geoportal CentropeMAP went online in 2005 and was soon extended by a cross-border statistics database which is linked to the map view. This powerful tool allows you to convert statistic data into easily legible thematic maps and various types of charts on the fly.

CentropeMAP is an online geoportal, which means it collects web map services (WMS) from all parts of the Centrope Region and presents all these services to the user compiled into one single map. CentropeMAP emphasises on datasets that are of interest for spatial planning and similar professions, comprising multiple data layers from the fields of biota, boundaries, elevation, imagery/base maps, inland waters, planning/cadastral, structure, and transportation.

Planners and stakeholders receive a great help from maps. Also, statistic data is important to analyse a region. So why not combine maps and statistics and create a combined view of statistic data directly in a map? CentropeSTATISTICS joins data from the regions Vysocina, Jiho-moravsky, Bratislavsky, Trnavsky, Győr-Moson-Sopron, Burgenland, Lower Austria, and Vienna and features readymade thematic maps as well as an expert mode which gives full access to the whole Centrope cross-border statistics database. Note that you can also download these data and, for example, use it in a spread-sheet. Almost all datasets are collected in a time series so that the development of the region can be explored in yearly steps since 2001; the data range comprises various fields like population statistics, population development and projection as well as land use, educational statistics, tourism or migration.

2 THE BASIC MODE

The CentropeSTATISTICS Basic Mode allows you to create a couple of thematic maps which have been predefined by the CentropeMAP team. It is mainly for quick queries or for people who do not have much experience in creating thematic maps or charts from statistic tables.

All available statistics themes are collected in a menu tree on the left part of the CentropeSTATISTICS window. After selection, it may take a couple of seconds until a map preview appears in the right half of the window. In the meanwhile, the theme you selected is prepared to be displayed as web map service image in the CentropeMAP window. Now you can hit the “Create Map” button. The map, which has been precalculated in the background, is now brought into the CentropeMAP window, and the CentropeMAP window is automatically brought to your desktop.

3 THE EXPERT MODE

3.1 Creating maps and charts

The CentropeSTATISTICS Expert Mode gives you full access to the whole Centrope cross-border statistics database, you can download these data and set several options while creating your thematic map or chart. The expert mode is meant for planners, statisticians and other professionals who know how to create meaningful thematic maps and charts.

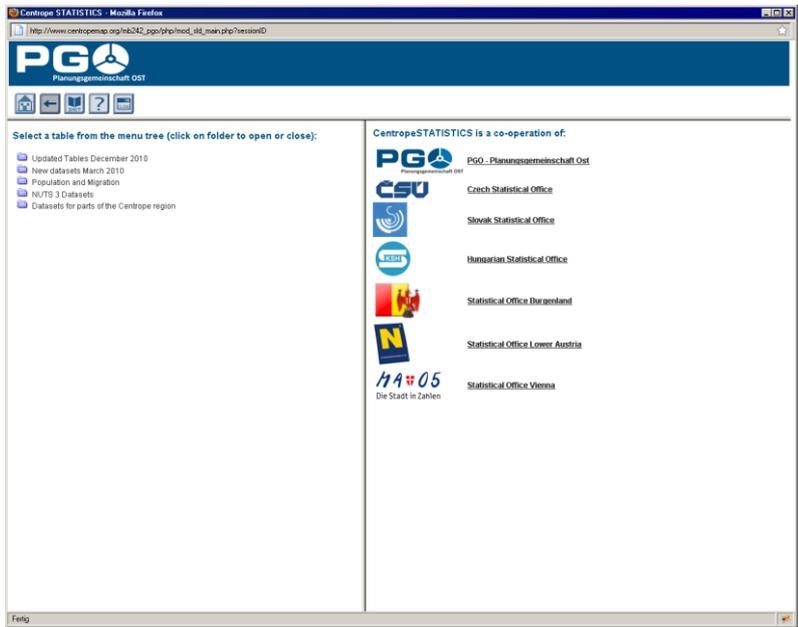


Fig. 1: CentropeSTATISTICS start screen.

Looking at the CentropeSTATISTICS Expert Mode start screen, you will see that it is divided into three parts. At the top you have the title bar with some buttons, and below the screen is divided into a left and a right half. If you like, you can resize the whole window or move the grey border that separates the left and right screen parts. All available statistics themes are collected in a menu tree on the left part of the CentropeSTATISTICS window. To select a theme, click on it. After your click, the availability form is loaded into the right half of the statistics window. It shows you which attributes are available for selection. In most cases, this will be the year only as we tend to prepare the statistics table in a way that similar themes are shown in separate tables and not altogether in one large table. Another example for an attribute to be selected is whether the number shall be shown as absolute values or, for instance, per 1,000 inhabitants.

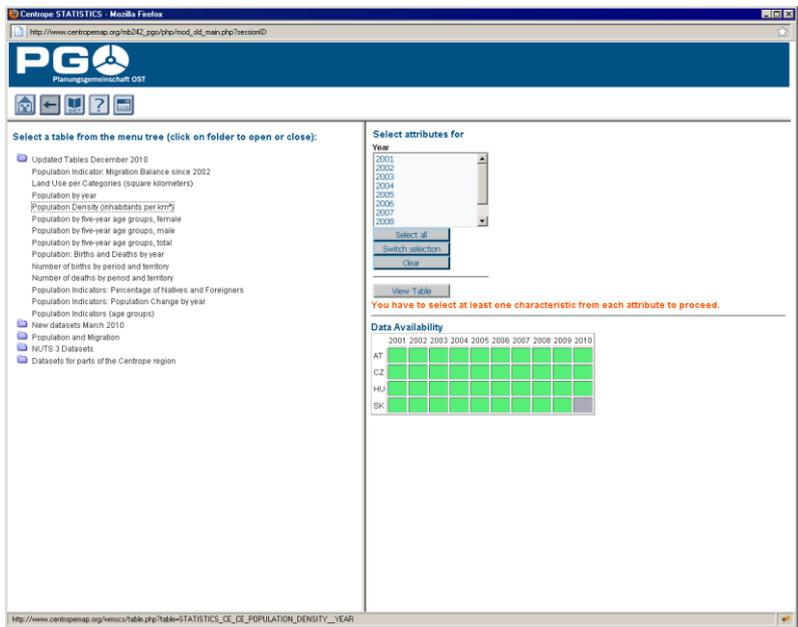


Fig. 2: CentropeSTATISTICS start screen after table selection.

A green square means that data is available, a grey square indicated that data is not available in a certain part of the Centrope region for a certain year. Clicking the “View Table” buttons opens the selected table in the statistics window. The division between left and right half of the window does not exist further on.

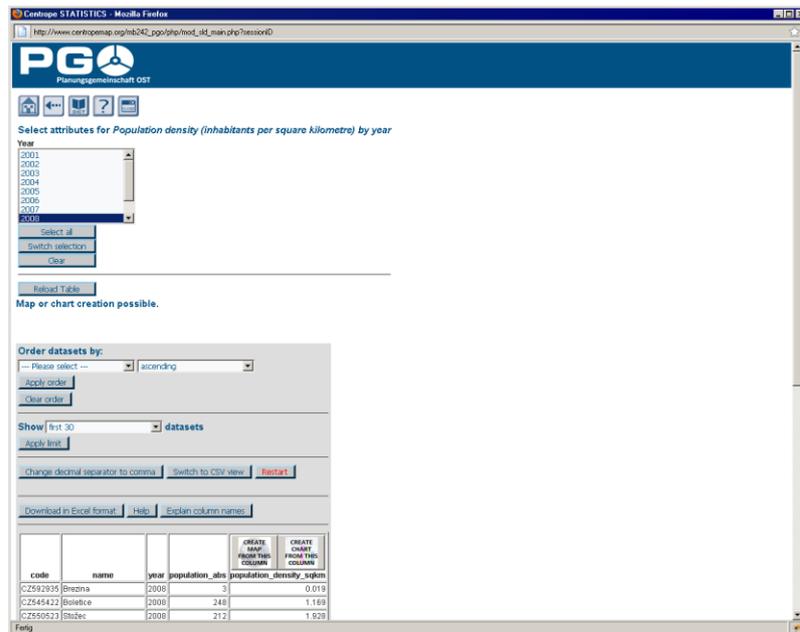


Fig. 3: CentropeSTATISTICS table view.

From this point, you are ready to

- create maps,
- create bar/line/point charts,
- create pie charts,
- create symbol maps.

The result may look like this:

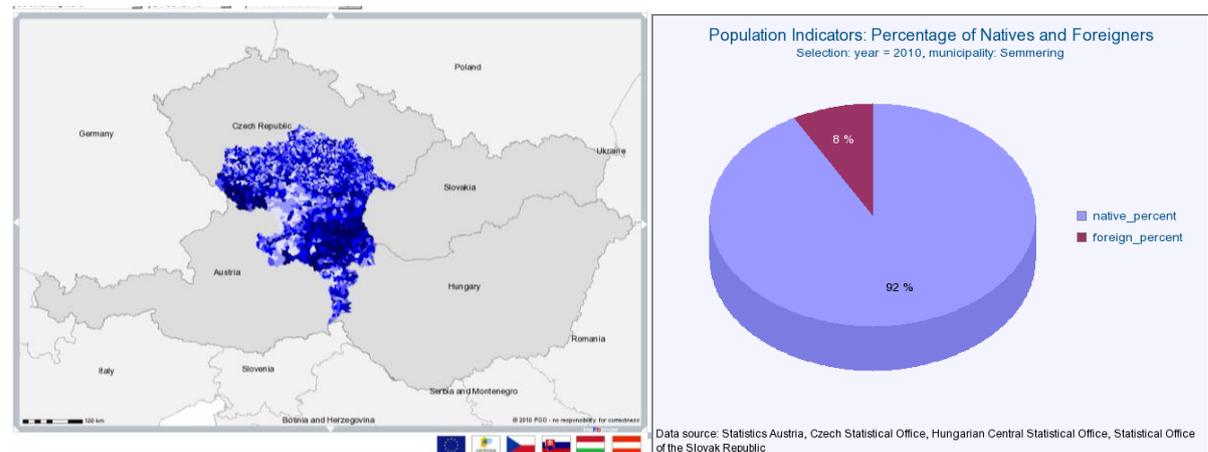


Fig. 4: Example results: thematic map (left), pie chart (right).

3.2 Working with user-defined tables

You are not restricted to the given tables in CentropeSTATISTICS. There is also a possibility to combine data from more than one table, put it together in a custom table, and even calculate your own indicators. First of all, if you want to work with a custom table, you have to create one. The “Create custom table” button is situated below the table tree menu on the start page of the CentropeSTATISTICS expert mode. After table creation, if you press the “View custom table” button, the same happens as if you selected any other table from the menu tree. It is still empty, so in the next step you have to add columns to your custom table. Return to the start page and select any table you want from the menu tree. Open it as usual. You can see that an additional button appears on the top of each column: “Add to custom table”.

Map calculations and map output are done only for the geographic intersection of the data added to your table. E. g. if you add a column containing data for the whole Centrope region and another column with data

for whole Austria, all following operations will only be performed for the Centrope part of Austria. If you try to add a column which would set the intersection to null, CentropeSTATISTICS will notice this and prevent you from adding this column.

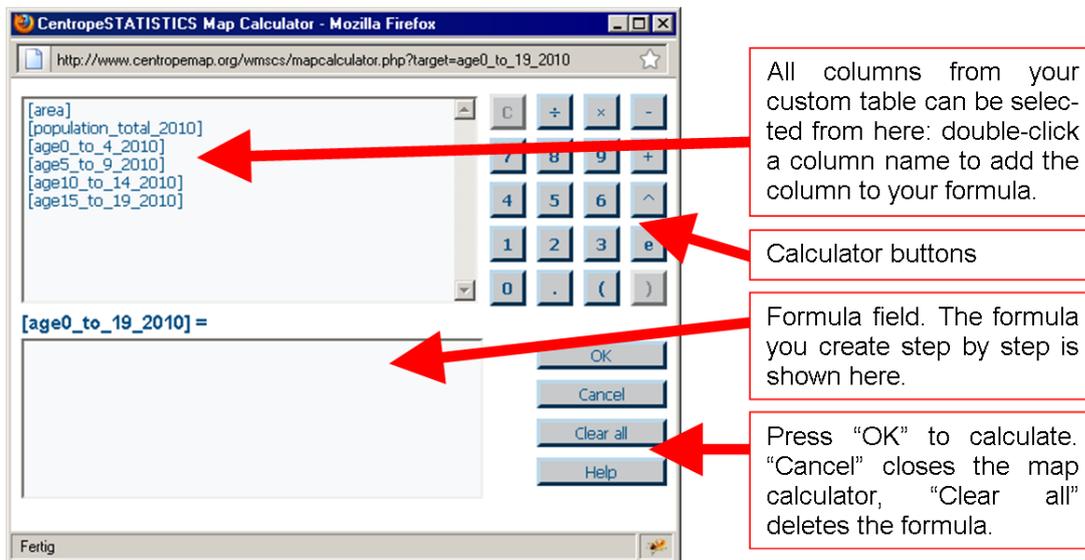


Fig. 5: The map calculator.

The map calculator works similar to any standard desk calculator. The “C” button lets you undo your last calculator action, i. e. remove a digit, an operator or a column name from the formula field. If you press “OK”, the formula will be checked for errors and executed, resulting in a new column within your custom table.

4 PERSPECTIVES

Behind CentropeMAP and CentropeSTATISTICS there is a cross-border database for both geodata and statistics. This database is growing – slowly, but steadily. Approximately twice a year experts from all partner regions meet to discuss the further extension of this database. For various reasons, the extension of the cross-border database is not an easy task:

All incoming datasets have to be checked on their compatibility and comparability with existing data. This is extremely important for statistical data because it has to be verified that datasets from different countries were collected in the same way before they are put together in one table. Otherwise, they cannot be compared with each other.

This situation may improve in the future: The statistic offices of the partner regions are more and more following guidelines of the European statistical office EUROSTAT, so their data output is automatically comparable between different regions and countries. Data delivery from each EU country to Eurostat has already been running for many years; however, these datasets are not on municipality level but often on a quite rough regional level which is good for a pan-European point of view, but to general for the Centrope region.

5 WEBLINK

<http://www.centropemap.org>