CREATION OF CARTOGRAPHY USING MAP SERVERS AS SOURCES

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Summary of the process for creating cartography using map servers.

Introduction

The constant development of technologies and the need to have available currently-valid and official geo-spatial information, means that now it is not strictly necessary to resort to investing large sums of money on static datasets that quickly become out of date in terms of the nation's development. Developed countries have already changed the policy for storing information about the assets and responsibilities of its citizens; for this they have created information services based on standards that ensure they are useful and comprehensible. For this reason the process demonstrates that it is possible to obtain a cartographic product by using servers of data and information freely available in the public domain and oriented towards the concepts of any project set in the national (Chilean) scene.

Objectives

The objective of this work is to present a methodology for obtaining cartography, by means of data freely-accessible and created by official ministerial organisations and other non-governmental organisations.

In order to distinguish between traditional cartography and this methodology, data will be generated containing the thematic information of the area covered in the cartography created, moreover showing the information obtained from other sources with which further analyses can potentially be derived.

Methodology

In order to perfrom this work a study area has to be chosen, this being a sector that defines where to search of the freely available information in order to obtain the spatial data. Once the study area is defined the scale for the work is selected, to serve as a reference when it becomes necessary to have the information printed on paper. Another important aspect to consider is the cartographic projection to be worked in; this needs to be compatible with the various sources of access to information.

To obtain the data making up this cartography, the following sequence will be followed:
Firstly the altimetric data is obtained, this being the basis for the creation of the contours or digital elevation models. This information will have different vertical contour intervals in accordance with the requirements of the terrain.

Secondly the hydrographic data is obtained; this is classified in accordance with the scale at which the map is worked.

Thirdly the road network is worked on, where this is available and currently valid.

Fourthly and finally the urban area data is obtained, thus completing the information considered necessary for this work as a cartographic base.

Finally, for obtaining the free-access information thematic information from the study area is worked on; this gives added value to the cartography being set up in this work.

When the work of obtaining information is finished, it is processed if required for any type of secondary editing of the data captured. .

All cartography, to be understood, should consider the toponymy, which is derived from the base data captured.

Results

In order to demonstrate what is viable, and as a result of this work, a final product will be derived having information in the margins. The scale of the output will be that stipulated at the beginning of this methodology.

Conclusions

Once this work is completed the intention is to fulfil the objective, previously set, of creating a cartographic product that, despite the lack of clear policies for public-domain free-access data, can (i) support the development and performance of public or private projects, (ii) be used mainly for educational purposes with students that do not have the resources to gain access to geo-spatial information, and (iii) provide a first approach to the territory in a large project.