

THE COLLECTION OF CURVES BY LEVEL ANALOG AND DIGITAL METHODS: A COMPARATIVE STUDY

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The advancement of Geographic Information Systems (GIS) mainly observed during the second half of the twentieth century led to an improvement and greater ease of access and construction of all types of maps including topographical maps. Topographic maps are planimetric and altimetric information, among the elements stand out altimetric contour lines, which consist of the union of points of units of equal value through the contour. Accordingly, this paper reports the experience gained by obtaining contour by the GIS SPRING, developed by the Instituto Nacional de Pesquisas Espaciais (INPE), compared with obtaining contour by the method of interpolation calculated. For the construction of a topographical map, which has equal distance of 10 meters, were used 22 measured points of a larger topographical map of Brasilia-DF, these 22 points are located between latitudes $-15^{\circ}47'53.24''$ and $-15^{\circ}50'0.83''$ and longitude $-47^{\circ}51'36.55''$ and $-47^{\circ}55'25.68''$ and were obtained in the tutorial itself SPRING. Through the measured points was generated a triangular grid and from this triangular grid were extracted the contour of the area through the tool "Generating contour". The extraction of level curves through the analog method was obtained by a calculation of triangles similarity between the points listed and purchased quota established for the curves levels. The result showed that the map analog and digital map is presented quite similar and distortions with respect to topographic