

## **DIGITAL TERRAIN MODELS WITH FREWARE PROGRAMS.**

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Experiences in Digital Terrain Models generation (DTMs) with freeware programs are presented. Freeware, as implied by the name, is a free software. Why do some authors/companies give up the opportunity to make money on the software they produce? For instance, the author/company may want to attract attention to his name or to his product, in other cases two versions of a product are provided: one is freeware and the other is a commercial version with extended features. Digital Terrain Models are computer generated models of the surface of the Earth and are being increasingly used by scientists from many disciplines. It can be reconstructed by interpolation of data from iso-elevation lines or from a regular grid of elevation data. To build a DTM you need at least two things : - Elevation data for the area you wish to investigate; - Mathematical methods to derive terrain specific information from elevation data. Real data from two areas of South Brazil, Itajai and Campo Alegre basins were used. The experiences with the freeware programs show an excellent way to explore the land surface with very low cost, but there are some limitations such as bugs and lack of technical assistance, inherent to most freeware software.