基于GIS的地质图图切剖面计算机辅助编绘 方世明 1 吴冲龙 1 刘 刚 1 汪新庆 1 赵温霞 2

(1. 中国地质大学资源学院信息所, 湖北 武汉 430074;

2. 中国地质大学地球科学学院,湖北 武汉 430074)

提要:图切剖面是区域地质图的重要组成部分,用于反映地下的地层和构造特征。传统的图切剖面是靠手工制作的,不但效率低下,而且不易保存和更新,作者研究开发了一种基于GIS的地质图图切剖面计算机辅助编绘系统。 其编绘过程主要包括以下几个步骤:(1)矢量化地质图的准备;(2)图切剖面的自动绘制;(3)人机交互修编与输出。本文以武汉市喻家山地质图的图切剖面编绘为例,证明该系统具有高效率、高质量的特征,可以满足现有各种比例尺的地质图图切剖面的制作要求。

|关键词: 地理信息系统; 区域地质图; 图切剖面; 计算机辅助编绘

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The Producing of Cutting Section Plane of Geology Map Aided by Computer Based on GIS Fang Shiming Wu Chonglong Liu Gang Wang Xingqing Zhao Wenxia

Information Institute, Faculty of Earth Resources, China University of Geosciences, Wuhan, 430074

Abstract: As an important component part of regional geology map, the cutting section map can reflect the characteristics of stratum and construction underground. But as the cutting section of geology map wasproduced by hand, the production efficient is low and is not convenient to keep and update, so we must produce a system aided by computer to produce cutting section of geology map. Through lots of founded work and combination with the GIS technology, I have been produced a system aided by computer to produce cutting section from geology map, and the main steps are: first, the preparation of founded geology map in vector; then, the production of cutting section automatically by computer; and the last is that the modifying and output of the cutting section. In the end we use the geology map of Yujiashan region in Wuhan city as an example, and produced a cutting section successfully, which has good efficiency and good quality. So the way is successful and worth to spread and apply.

Key words: geographic information system regional geology map cutting section map computer aiding