

基于ArcObjects的气象等值线自动生成技术及应用

刘德义¹;钱建平²;吴晓明²;黎贞发¹;李明²

1.天津市气候中心,天津 300074;2.国家农业信息化工程技术研究中心,北京100097

Auto-generation technology of meteorological isoline based on ArcObjects and its application

LIU De-yi¹;QIAN Jian-ping²;WU Xiao-ming²;LI Zhen-fa¹;LI Ming²

1. Tianjin Climate Center, Tianjin 300074, China; 2. National Engineering Research Center for Information Technology in Agriculture, Beijing 100097, China

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摘要 等值线分析是气象数据分析中必不可少的一项内容,该功能可以从整体上把握区域内气象要素的总体特征与变化规律。按照插值、网格化和等值线追踪的思路,利用ESRI提供的ArcObjects组件实现等值线生成的功能;借助ATL技术将等值线生成功能封装成COM组件。本文以天津市200多个自动气象站的气象数据为例,对组件功能进行测试。实践证明,客户端程序可以成功调用该组件,并生成符合要求的等值线。该组件不受客户端程序语言和版本的限制,可适合基于WebGIS的气象相关系统应用。

关键词: [ArcObjects](#) [组件](#) [气象等值线](#) [自动生成技术](#)

Abstract: Isolines is important to analysis meteorological data for it enables users to grasp the overall characteristics and regularity of meteorological elements in study area. Auto-generation function of meteorological isoline was realized by interpolation, gridding and contour tracking based on ArcObjects components provided by ESRI, which was encapsulated in a COM component by ATL technology. According to meteorological data from automatic weather station (more than 200 stations) in Tianjin, the component function was tested. The results indicate that this component could be called by client program. The relevant isoline could be generated. Furthermore, the component is free from the constraints of the version and development language of client program, which is fit for the corresponding system of meteorological department based on WebGIS.

Keywords:

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