

博士论坛

基于EPANET与ArcEngine的供水管网建模软件

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收稿日期 2008-10-9 修回日期 2008-11-14 网络版发布日期 2009-2-19 接受日期

摘要 为避免采用商业建模软件需要面对的二次开发问题, 使得建模软件更为贴合不同水司的需求, 提出了基于EPANET和ArcEngine快速构建供水管网建模软件的方法。该系统采用Geodatabase存储模型数据, 以COM技术对EPANET源代码进行改进和封装, 在ArcEngine的.NET框架中实现界面和大部分功能, 开发时间短, 费用低, 功能针对性强, 已在华北某省会城市得到成功应用。

关键词 [供水管网建模](#) [EPANET](#) [ArcEngine](#) [Geodatabase](#) [组件对象模型](#)

分类号

Water distribution system simulation software based on EPANET and ArcEngine

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Abstract

To avoid the re-development of business simulation software and satisfy the requirement of water supply company, the method of building water distribution system simulation software based on EPANET and ArcEngine is proposed. In the software system, the Geodatabase model database is designed to store the model data of water distribution system. The EPANET source code is encapsulated with COM technology and the GUI and most of the functions are realized in the .NET framework of ArcEngine. This developing method costs less time and money and the system has been applied successfully in a capital city of one province in North China.

Key words [water distribution system simulation](#) [EPANET](#) [ArcEngine](#) [Geodatabase](#) [COM](#)

DOI: 10.3778/j.issn.1002-8331.2009.06.010

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