**OOTEN**

OOTEN (Object-Oriented Toolkit for EPANET) was developed to provide the EPANET Programmers Toolkit functionality in a way that better suits object-oriented programming. There are many advantages to object-oriented programming such as ease of developing, checking, expanding, sharing and maintaining programming code.

OOTEN was mainly developed to support our own research efforts in the modeling of water distribution systems, but is made available free of charge to the wider research and modeling community.

OOTEN has all the functionality of the EPANET Programmers Toolkit, but also expands the functionality of the EPANET Programmers Toolkit, for instance to handle Curves. Work is underway to extend the functionality of OOTEN further.

OOTEN is provided as a collection of standard C and C++ source code files (.c, .cpp and .h files) and uses the EPANET source code directly. In some instances, functions were added to the EPANET source code to support for the expanded functionality of OOTEN. However, the existing EPANET functions were not amended and should thus work normally. To distinghuish amended EPANET source code files from the standard files, the amended files were saved with an "\_on" extension. The following OOTEN files replace the standard EPANET source code files:

epanet\_on.c
toolkit\_on.h

Contents of OOTEN.ZIP
This archive contains the source code for OOTEN (Object-Oriented Toolkit for EpaNet), as well as the EPANET 2 source code.

OOTEN is based on the EPANET Programmers Toolkit, and incorporates all the functionality of the EPANET Programmers Toolkit in an object-oriented shell. It also adds functionality that is currently not available in the EPANET Programmers Toolkit.

EPANET is written in ANSI-compatible C and OOTEN in ANSI C++. OOTEN was developed using Borland C++ Builder version 6.0, but should compile with any ANSI C and C++ compatible compiler. no visual components, such as windows, are referenced in the OOTEN source code.

The files included in OOTEN.ZIP are listed below in the following categories:
- Help files
- EPANET source code files
- OOTEN source code files
- Example Borland C++ Builder project files

OOTEN may be obtained by sending an email request to jevz@ing.rau.ac.za.

Comments, corrections and questions are welcomed and should be emailed to jevz@ing.rau.ac.za.

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