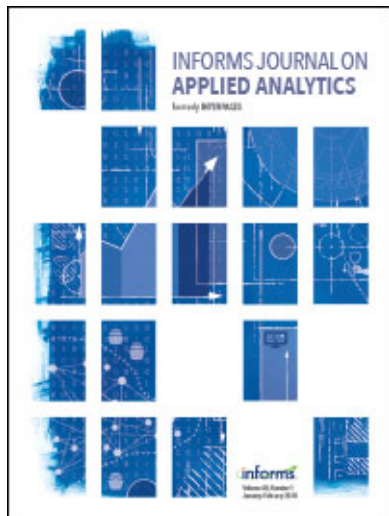




Interfaces

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Letter to the Editor

To cite this article:

(1982) Letter to the Editor. Interfaces 12(4):142-142. <https://doi.org/10.1287/inte.12.4.142>

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LETTER TO THE EDITOR

To the Editor:

Re: R. E. Thomas' review of the book *Algorithms for Network Programming* by Kennington and Helgason, *Interfaces* Vol. 12, No. 2, pp. 91-92.

On page 92, Mr. Thomas makes the following statement:

The book contains about 200 pages plus over 75 pages of worthwhile material in the appendices. One appendix is devoted to NETFLO, a creative program developed by Professor Klingman and others at the University of Texas to solve minimum cost network flow problems. A table of timing comparisons between NETFLO and RNET is quite interesting. (RNET is a program developed by Professor Grigoriadis and others at Rutgers.) After studying the relative times, the reader may wonder why the code for the speedier program RNET was not also included.

This statement contains an important error. NETFLO was developed by Professors Kennington and Helgason at Southern Methodist University. Although not the fastest, it is a good code, and Professors Kennington and Helgason should be credited with making such a code generally available.

It is difficult for me to understand how the book reviewer came to credit me and others at the University of Texas with the development of NETFLO since we are not referenced on it anywhere in the book; however, we *are* credited on page 255 of the book with providing Professors Kennington and Helgason with NETGEN, a generator for large-scale network test problems which was used to generate the 35 test problems used to compare RNET and NETFLO. Thus it is possible that Mr. Thomas confused NETGEN and NETFLO.

Since the late 1960's, Professor Glover, myself, and others at the University of Texas have developed and tested numerous algorithms for different types of network problems. We have tried to provide researchers with test problems and to conduct our own computational investigations so as to insure valid comparisons. For instance, all of our conclusions are based on computational results obtained by running all codes on the same computer, compiler, and problems. In May 1980, we initiated a study [Glover and Klingman, 1982] to integrate and extend the collective ideas of the 1970's on minimum cost network flow problem software development which provided a new code called ARCNET. Table 1 contains computational times for ARCNET and the other state-of-the-art codes PNET-I [Glover *et al.*, 1974], GNET [Bradley *et al.*, 1977], and RNET (version 3.6) [Grigoriadis and Hsu, 1979], on the 35 test problems used in the Kennington and Helgason study.

The results in Table 1 indicate that ARCNET is faster on these test problems than any of the other codes, both by individual network topology type and in terms of total solution times for all 35 problems. Thus I feel that there is an implicit error in Mr. Thomas' statement that RNET is faster than the codes developed at the University of Texas.