American Nuclear Society

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August 14, 2019
ANSI/ANS-10.2-2000 (R2009)

portability of scientific and engineering software

an American National Standard

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Foreword

(This Foreword is not a part of American National Standard for Portability of Scientific and Engineering Software, ANSI/ANS-10.2-2000.)

This standard is directed primarily at the computer-independent aspects of digital computer software. That is, the developer is asked to accept the fact that many of the difficulties associated with the portability of computer software can be avoided. Unnecessary expense, wasted effort, and loss of computing capability have occurred because the practices recommended in this standard have not usually been assigned sufficient importance. This is true not only in program conversion between installations but also in program modification and conversion within the originating installation. Some of the recommendations herein cover elementary practices normally followed, yet often overlooked. They can be put into practice with a reasonable amount of additional effort over that normally expended in the development of software.

This standard and the ANS standards listed below provide one source of information for developing software. Additional sources of information on software development may be found in numerous books and other software engineering standards and guides (from organizations such as IEEE, ISO, and IEC). In general, the better the software is engineered, the more portable it will be.

This standard complements the following ANS-10 standards relating to computer software development:

ANSI/ANS-10.3-1995, *American National Standard for Documentation of Computer Software*

ANSI/ANS-10.4-1987, *American National Standard Guidelines for the Verification and Validation of Scientific and Engineering Computer Programs for the Nuclear Industry*

ANSI/ANS-10.5-1994, *American National Standard for Accommodating User Needs in Computer Program Development*

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