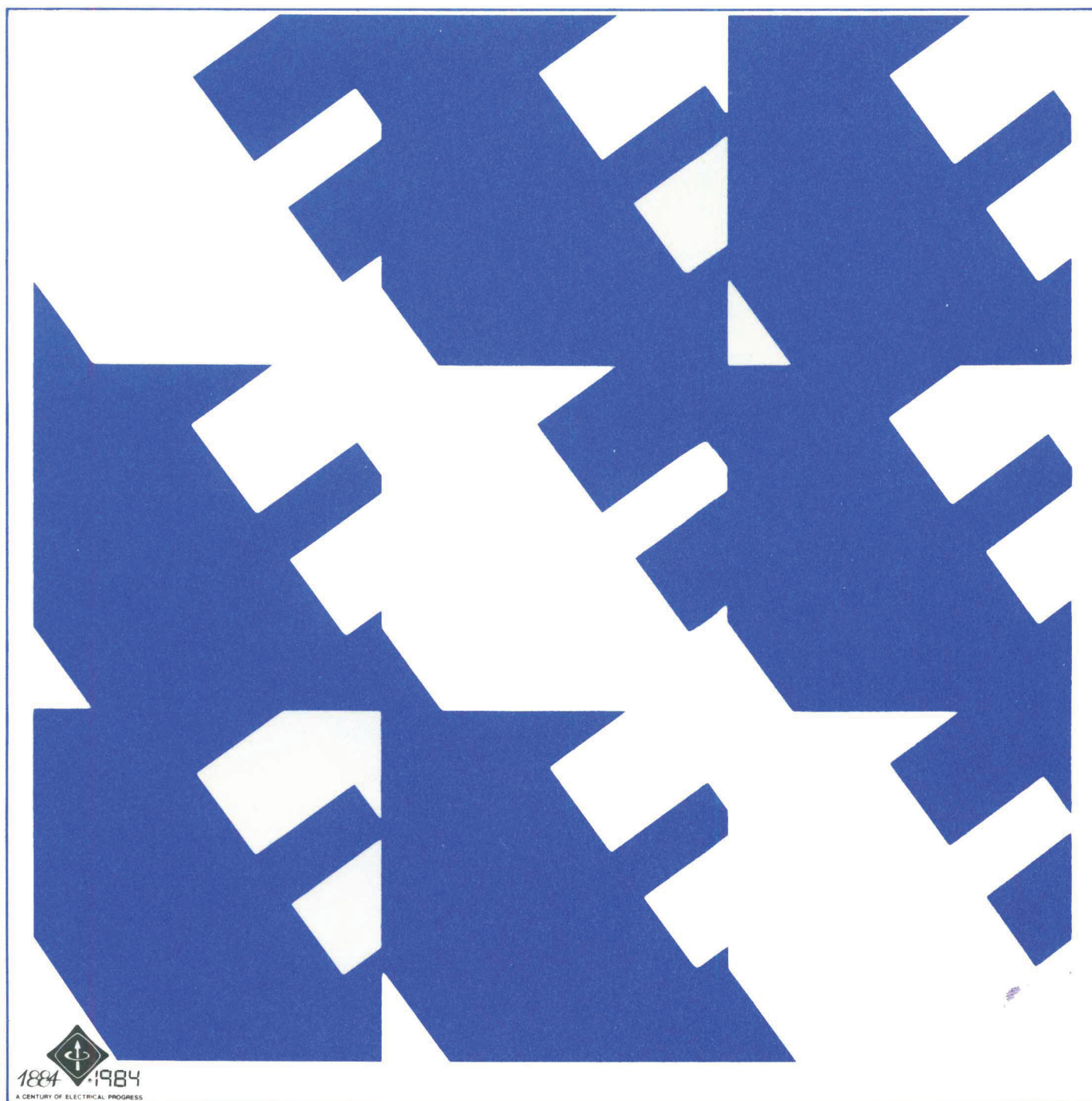


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IEEE Standard for Software Quality Assurance Plans

ANSI/IEEE Std 730-1981



IEEE

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Std 730)

An American National Standard

**IEEE Standard for
Software Quality Assurance Plans**

Sponsor
Software Engineering Technical Committee
of the
IEEE Computer Society

Approved September 17, 1981
IEEE Standards Board

Approved June 21, 1982
American National Standards Institute

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Foreword

(This Foreword is not a part of IEEE Std 730-1981, IEEE Standard for Software Quality Assurance Plans.)

This standard assists in the preparation and content of Software Quality Assurance Plans and provides a standard against which such plans can be prepared and assessed. It is directed toward the development and maintenance of critical software, that is, where failure could impact safety or cause large financial or social losses.

There are three groups to whom this standard applies: the user, the developer, and the public.

(1) The user, who may be another element of the same organization developing the software, has a need for the product. Further, the user needs the product to meet the requirements identified in the specification. The user thus cannot afford a "hands-off" attitude toward the developer and rely solely on a test to be executed at the end of the software development time period. If the product should fail, not only does the same need still exist but also a portion of the development time has been lost. The user therefore needs to obtain a reasonable degree of confidence that the product is in the process of acquiring required attributes during software development.

(2) The developer needs an established standard against which to plan and to be measured. It is unreasonable to expect a complete reorientation from project to project. Not only is it not cost-effective, but unless there exists a stable framework on which to base changes, improvements cannot be made.

(3) The public may be affected by the users' use of the product. These users include, for example, depositors at a bank and passengers using a reservation system. Users have requirements, such as legal rights, which preclude haphazard development of software. At some later date, the user and the developer may be required to show that they acted in a reasonable and prudent professional manner to ensure that required software attributes were acquired.

This standard was prepared by the Software Engineering Standards Subcommittee of the Software Engineering Technical Committee of the IEEE Computer Society. At the time it approved this standard, the subcommittee had the following membership:

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