

**IEEE
Std 828-1983**

IEEE Standard for Software Configuration Management Plans

Sponsor

**Software Engineering Technical Committee
of the
IEEE Computer Society**

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(This Foreword is not a part of IEEE Std 828-1983, IEEE Standard for Software Configuration Management Plans.)

Software Configuration Management (SCM) is a formal engineering discipline which provides software developers and users with the methods and tools to identify the software developed, establish baselines, control changes to these baselines, record and track status, and audit the product. SCM is the means through which the integrity and continuity of the software product are recorded, communicated, and controlled. The application of SCM, together with Hardware Configuration Management and overall Systems Configuration Management, benefits all phases of the life cycle of a system containing software components and is a matter of good engineering practice. Without SCM, the reliability and the quality of the software cannot be assured.

This standard assists in the preparation of SCM plans for all environments; for example, large-scale ADP systems, embedded computer systems, control processors, etc, and provides a standard against which such plans can be prepared and assessed. It is directed toward the development and maintenance of all software, including critical software, that is, software whose failure could impact safety or cause large financial or social losses.

There are three groups served by this standard: the users, the developers, and the public.

(1) It aids the users in obtaining and supporting a software product consistent with the users' evolving needs. It assists the users in obtaining a reasonable degree of confidence that the product is in the process of acquiring required attributes as the software is being developed and maintained.

(2) It aids the developers by providing an established standard against which a cost-effective solution to SCM needs can be planned and measured throughout the applicable portions of the software life cycle.

(3) It aids the public by enhancing the likelihood that a software product will perform as expected. The public has legal rights which preclude haphazard control of software development and maintenance. At some later date, the users and developers may be required to show that they acted in a reasonable and prudent manner to ensure that adequate controls were applied.

This standard is consistent with ANSI/IEEE Std 730-1981, IEEE Standard for Software Quality Assurance Plans and IEEE Std 729-1983, IEEE Standard Glossary of Software Engineering Terminology. This standard may be applied in conjunction with those standards, or independently.

This standard was prepared by a working group of the Software Engineering Subcommittee of the Technical Committee on Software Engineering of the IEEE Computer Society. The working group had the following members:

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