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Australian Standard®

Software design description

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Australian Bankers Association

Australian Computer Society

Australian Computer Society National Software Industry Committee

Australian Information Industry Association

Australian Software Metrics Association

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PREFACE

This Standard was prepared by the Standards Australia Committee on Software Engineering. It is identical with and has been reproduced from ANSI/IEEE Std 1016, *IEEE Recommended Practice for Software Design Descriptions.*

Under arrangements made between Standards Australia and the international Standards bodies, ISO and IEC, as well as certain other Standards organizations, users of this Australian Standard are advised of the following:

Copyright of the content of this Standard remains the property of IEEE. The copyright of this edition is vested in Standards Australia.

For the purpose of this Australian Standard, it should be noted that there are no Australian equivalents to the ANSI/IEEE Standards referred to in this Standard.

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STANDARDS AUSTRALIA

Australian Standard
Software design description

1. Scope

This is a recommended practice for describing software designs. It specifies the necessary information content, and recommended organization for a software design description. A software design description is a representation of a software system that is used as a medium for communicating software design information.

The practice may be applied to commercial, scientific, or military software that runs on any digital computer. Applicability is not restricted by the size, complexity, or criticality of the software.

This practice is not limited to specific methodologies for design, configuration management, or quality assurance. It is assumed that the quality design information and changes to the design of description will be managed by other project activities. Finally, this document does not support nor is it limited to any particular descriptive technique. It may be applied to paper documents, automated databases, design description languages, or other means of description.

2. References

This standard shall be used in conjunction with the following publications:

[1] ANSI/IEEE Std 729-1983, IEEE Standard Glossary of Software Engineering Terminology.[1]

[2] ANSI/IEEE Std 730-1984, IEEE Standard for Software Quality Assurance Plans.

[3] ANSI/IEEE Std 828-1983, IEEE Standard for Software Configuration Management Plans.

[4] ANSI/IEEE Std 830-1984, IEEE Guide to Software Requirements Specifications

[5] Freeman, P. and A.I. Wasserman. *Tutorial on Software Design Techniques.* 4th Edition, IEEE Computer Society Press, Annotated Bibliography, pp 715-718, 1983.

3. Definitions

The definitions listed here establish meaning in the context of this recommended practice. Definitions of other terms used in this document can be found in ANSI/IEEE Std 729-1983 [1].[2]

design entity. An element (component) of a design that is structurally and functionally distinct from other elements and that is separately named and referenced.

design view. A subset of design entity attribute information that is specifically suited to the needs of a software project activity.

entity attribute. A named characteristic or property of a design entity. It provides a statement of fact about the entity.

software design description (SDD). A representation of a software system created to facilitate analysis, planning, implementation, and decision making. A blueprint or model of the software system. The SDD is used as the primary medium for communicating software design information.

4. Considerations for Producing a Software Design Description (SDD)

This section provides information to be considered before producing an SDD. How the SDD fits into the

[2] Numbers in brackets correspond to those of the references in Section 2 of this standard.