



Standard Guide for Transition and Performance of Marine Software Systems Maintenance¹

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1. Scope

1.1 This guide covers a recommended plan for transition and acceptance of marine software that was developed by an activity other than the maintaining activity. It further provides a recommended iterative process model for managing and executing software maintenance activities.

1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

E0622 Guide for Developing Computerized Systems (Withdrawn 2000)³

E919 Specification for Software Documentation for a Computerized System (Withdrawn 2000)³

E1013 Terminology Relating to Computerized Systems (Withdrawn 2000)³

2.2 IEEE Standards:⁴

100 Standard Dictionary for Electrical and Electronic Terms

610 Standard Glossary of Software Engineering Terminology

1063 Standard for Software User Documentation

1074 Standard for Developing Software Life Cycle Processes

1219 Standard for Software Maintenance

2.3 ANSI Standards:⁵

ANSI/ISO/ASQC Q9000—3 Quality Management and Quality Assurance Standards: Guidelines for the Application of ANSI/ISO/ASQC Q 9001 to the Development, Supply and Maintenance of Software

ANSI/ISO/ASQC Q 9001 Quality Systems—Model for Quality Assurance in Design, Development, Production, Installation and Servicing

2.4 Military Standards and Specifications:⁶

MIL-STD 498 Software Development and Documentation

3. Terminology

3.1 The terminology used in this guide is defined in Terminology E1013 and Guide E0622.

3.2 Other computer-related terms in this guide are defined in IEEE 100 and IEEE 610.12.

4. Significance and Use

4.1 This guide provides a recommended transition plan for a marine software maintainer, when the maintainer is other than the supplier, to develop the capability to make extensive changes or extensions to the programs. Further, this guide provides a recommended interactive process model for managing and executing software maintenance activities. This guide applies principally to the marine software that requires design effort and for which the product requirements are stated principally in performance terms.

5. Software Transition Plan

5.1 The software transition plan is developed when the software support concept calls for transition of responsibility from the developer to a separate support agent. The software transition plan identifies hardware, software, and other resources needed for life cycle support of deliverable software and describes the developer's plans for transitioning deliverable items to the support agent. The developer shall identify all software development resources needed by the support agent to

⁵ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁶ Available from DLA Document Services, Building 4/D, 700 Robbins Ave., Philadelphia, PA 19111-5094, <http://quicksearch.dla.mil>.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from Institute of Electrical and Electronics Engineers, Inc. (IEEE), 445 Hoes Ln., P.O. Box 1331, Piscataway, NJ 08854-1331, <http://www.ieee.org>.