
**Information technology — Document
processing and related communication —
Conformance testing for Standard
Generalized Markup Language (SGML)
systems**

*Technologies de l'information — Traitement documentaire et communication
connexe — Tests de conformité pour langage normalisé de balisage
généralisé (SGML)*

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 13673 was prepared by ANSI (as ANSI X3.190) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Annex A forms a normative part of this International Standard. Annex B is for information only.

Introduction

ISO 8879:1986 and 8879:1986/A1:1988, *Information processing – Text and office systems – Standard Generalized Markup Language (SGML)*, define when a system is a conforming SGML system. The determination of whether a system is a conforming SGML system is of value both to potential users of such systems and to their developers. This determination is, however, a complex process. To this end, efforts are underway to develop test suites to validate conformance. Standardization of development and use of test suites assures consistency of results and informs the public of the implications of the tests. Such formalism is provided by this standard, which includes

- guidelines for the content of individual tests;
- rigorous conventions for naming test cases and the constructs used within them;
- formatting and comment conventions;
- conventions for classifying test cases;
- conventions for documenting test suites;
- definition of a Reference Application for SGML Testing (RAST) that indicates how an SGML parser interprets a test;
- definition of a Reference Application for Capacity Testing (RACT) that reports a parser's capacity calculations;
- conventions for reporting a system's performance on a test suite.

This standard also addresses conformance to the related standard, ISO 9069:1988, *Information Processing – SGML support facilities – SGML Document Interchange Format (SDIF)*, as SDIF is needed to connect the several entities of an SGML document into a single object for interchange within OSI.

This standard may be used by those who develop SGML test suites, those who build SGML systems to be evaluated by such suites, and those who examine an SGML system's performance on a test suite as part of the process of selecting an SGML tool.

Information technology — Document processing and related communication — Conformance testing for Standard Generalized Markup Language (SGML) systems

1 Scope

This standard addresses the construction and use of test suites for verifying conformance of SGML systems. Its provisions assist those who build test suites, those who build SGML systems to be evaluated by such suites, and those who examine an SGML system's performance on a test suite as part of the process of selecting an SGML tool.

In particular, this standard includes:

- criteria for the organization of test suites, including naming conventions, documentation conventions, and specification of applicable concrete syntaxes and features. Among other advantages, these conventions facilitate any non-SGML automatic processing that may be convenient for the developers or the users of the tests;

NOTE – An example of such non-SGML processing is sorting tests by name.

- a standard form for describing test results that makes clear what has been proven or disproven by the tests;
- the specification of a Reference Application for SGML Testing (RAST) that interprets all markup to allow machine comparison of test results for documents conforming to ISO 8879. RAST indicates in a standard way when tags, processing instructions, and data are recognized by the parser, replacing references and processing markup declarations and marked sections appropriately. RAST tests information likely to be

passed by a general-purpose SGML parser to an application but does not test additional information that some parsers provide;

- the specification of a Reference Application for Capacity Testing (RACT) that reports a validating parser's capacity calculations. An SGML system that supports this application indicates its ability to report capacity errors regardless of whether it supports variant capacity sets;
- the specification of test procedures related to SDIF data streams.

This standard applies to the testing only of aspects of SGML implementation and usage for which objective conformance criteria are defined in ISO 8879.

NOTE – Among the aspects of an SGML system not addressed by this standard are error recovery, phrasing of error messages, application results, and documentation (including the system declaration).

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indi-

cated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 646:1983, *Information processing – ISO 7-bit coded character set for information interchange*

ISO 8879:1986, *Information processing – Text and office systems – Standard Generalized Markup Language (SGML)*

ISO 8879:1986/A1:1988, *Information processing – Text and office systems – Standard Generalized Markup Language (SGML) Amendment 1*

ISO 9069:1988, *Information processing – SGML support facilities – SGML Document Interchange Format (SDIF)*