AS/NZS ISO 14289.2:2025
ISO 14289-2:2024

Australian/New Zealand Standard™

Document management applications — Electronic document file format enhancement for accessibility

Part 2: Use of AS/NZS ISO 32000.2 (PDF/UA-2)



AS/NZS ISO 14289.2:2025

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee IT-021, Records and Document Management Systems. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 10 September 2025 and by the New Zealand Standards Approval Board on 03 September 2025.

This Standard was published on 26 September 2025.

The following are represented on Committee IT-021:

- Association of Local Government Information Management
- Australian Industry Group
- Australian Society of Archivists
- Court Services Victoria
- Monash University
- National Archives of Australia
- Public Record Office Victoria
- Queensland State Archives
- Records and Information Management Practitioners Alliance
- State Records Authority NSW
- Territory Records Office, ACT
- The University of Melbourne
- The University of Sydney

This Standard was issued for comment as DR AS/NZS ISO 14289.2:2025.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals and new products by visiting:

www.standards.org.au

www.standards.govt.nz

ISBN: 978 1 76175 381 7

AS/NZS ISO 14289.2:2025
ISO 14289-2:2024

Australian/New Zealand Standard™

Document management applications — Electronic document file format enhancement for accessibility

Part 2: Use of AS/NZS ISO 32000.2 (PDF/UA-2)

First published as AS/NZS ISO 14289.2.2025.

© Standards Australia Limited/the Crown in right of New Zealand, administered by the New Zealand Standards Executive 2025

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth) or the Copyright Act 1994 (New Zealand).

How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-021, Records and Document Management Systems.

The objective of this document is to specify how to use the Portable Document Format (PDF) specified in AS/NZS ISO 32000.2 to construct accessible digital documents using PDF technology.

This document does not specify —

(a) processes for converting paper or electronic documents to the PDF/UA format;

(b) technical design, user interface, implementation, or operational details of presentation;

(c) physical methods of storing these documents such as media and storage conditions;

(d) required computer hardware and/or operating systems;

(e) requirements specific to content (beyond facilitating programmatic access and textual representation);

(f) requirements applying to specific classes (e.g. invoices, reports, etc.) of documents.

This document is identical to, and has been reproduced from, ISO 14289-2:2024, *Document management applications — Electronic document file format enhancement for accessibility — Part 2: Use of ISO 32000-2 (PDF/UA-2)*.

As this document has been reproduced from an international document, a comma is to be read as a full point when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

© Standards Australia Limited/Standards New Zealand 2025

Contents

Page

Preface ..... **v**
Foreword ..... **viii**
Introduction ..... **ix**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Notation **2**
5 Version identification **2**
6 Conformity requirements **3**
6.1 General 3
6.2 Conforming files 3
7 Accessible PDF **4**
7.1 Principles 4
7.2 Using other standards in the PDF/UA context 5
7.2.1 Accessibility standards 5
7.2.2 Declarations 5
7.2.3 Other PDF subset standards 5
8 File format requirements **5**
8.1 General 5
8.2 Logical structure 6
8.2.1 General 6
8.2.2 Real content 6
8.2.3 Logical content order 7
8.2.4 Structure types 7
8.2.5 Additional requirements for specific structure types 8
8.2.6 Structure attributes 18
8.3 Artifacts 19
8.3.1 General 19
8.3.2 Use of the Artifact structure element 19
8.4 Text representation for content 19
8.4.1 General 19
8.4.2 Unicode mapping in tagged PDF 19
8.4.3 Replacements and alternatives for text 20
8.4.4 Declaring natural language 20
8.4.5 Fonts 20
8.5 Real content without textual semantics 23
8.5.1 General 23
8.5.2 Use of ActualText 23
8.6 Text string objects 23
8.7 Optional content 24
8.8 Intra-document destinations 24
8.9 Annotations 24
8.9.1 General 24
8.9.2 Semantics and content 25
8.9.3 Order 29
8.9.4 Alternative descriptions 29
8.10 Forms 30
8.10.1 General 30
8.10.2 Context 30
8.10.3 Fields 31
8.10.4 Non-interactive forms 33

© Standards Australia Limited/Standards New Zealand 2025

8.11 Metadata 33
8.11.1 General 33
8.11.2 Interactive aspects 33
8.12 Navigation 33
8.12.1 General 33
8.12.2 Outlines 33
8.12.3 Page labels 34
8.12.4 Article threads 34
8.13 Actions 34
8.13.1 General 34
8.13.2 ECMAScript actions 34
8.13.3 URI actions 34
8.14 Use of embedded files 34
8.14.1 Descriptions for embedded files 34
8.14.2 Use of associated files 34
Annex A (informative) **Example PDF Declaration 35**
Annex B (informative) **Examples of attribute usage 36**
Bibliography 41

© Standards Australia Limited/Standards New Zealand 2025

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 171, *Document management applications*, Subcommittee SC 2, *Document file formats, EDMS systems and authenticity of information.*

A list of all parts in the ISO 14289 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

© Standards Australia Limited/Standards New Zealand 2025

Introduction

The Portable Document Format (PDF) is a digital format for representing documents. PDF files can be created natively in PDF form, converted from other electronic formats, or digitized from paper. Businesses, governments, libraries, archives, and other institutions and individuals around the world use PDF to represent considerable bodies of important information. These PDF files should be made accessible to users with disabilities.

The primary purpose of the ISO 14289 series, known as PDF/UA, is to define how electronic files in the PDF format can be represented in a manner that allows them to be accessible. The accessibility of a PDF document depends on the inclusion of a variety of semantic information such as (but not limited to):

— machine-readable text presented in a declared language;

— appropriate semantic structures for elements such as paragraphs, lists, tables and headings;

— the organization of semantic structures in logical reading order;

— descriptive metadata, such as alternate descriptions for images.

This document is intended as a companion standard to be used in conjunction with ISO 32000-2 (PDF 2.0). Other standards can also be relevant for the purpose of achieving accessibility.

This document does not replace ISO 14289-1. ISO 14289-1 provides normative guidance based on ISO 32000-1; this document provides normative guidance based on ISO 32000-2.

© Standards Australia Limited/Standards New Zealand 2025

Australian/New Zealand Standard™

Document management applications — Electronic document file format enhancement for accessibility

Part 2: Use of AS/NZS ISO 32000.2 (PDF/UA-2)

1 Scope

This document specifies how to use the Portable Document Format (PDF) specified in ISO 32000-2 to construct accessible digital documents using PDF technology.

This document does not specify:

— processes for converting paper or electronic documents to the PDF/UA format;

— technical design, user interface, implementation, or operational details of presentation;

— physical methods of storing these documents such as media and storage conditions;

— required computer hardware and/or operating systems;

— requirements specific to content (beyond facilitating programmatic access and textual representation);

— requirements applying to specific classes (e.g. invoices, reports, etc.) of documents.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14289-1, *Document management applications — Electronic document file format enhancement for accessibility — Part 1: Use of ISO 32000-1 (PDF/UA-1)*

ISO 32000-2:2020, *Document management — Portable document format — Part 2: PDF 2.0*

ISO/TS 32005, *Document management — Portable Document Format — PDF 1.7 and 2.0 structure namespace inclusion in ISO 32000-2*

W3C *Digital Publishing WAI-ARIA Module 1.0 (DPUB-ARIA), W3C Recommendation, 14 December* 2017, https://www.w3.org/TR/dpub-aria-1.0/

PDF Association, *PDF Declarations*, September 5, 2019, https://www.pdfa.org/resource/pdf-declarations/

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

© Standards Australia Limited/Standards New Zealand 2025