



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 23286.3-2021

**Document management - Electronic document file format for
long-term preservation - Part 3: Use of ISO 32000-1 with
support for embedded files(PDF/A-3)**

Issued on: April 30, 2021

Implemented on: November 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 notation	4
5 Conformance level	4
5.1 Overview	4
5.2 Level A conformance	5
5.3 Level B conformance	5
5.4 U-level conformance	5
5.5 Qualified Reader	5
6 Technical requirements	5
6.1 File structure	5
6.2 Graphics	8
6.3 Mark	15
6.4 Interactive forms	16
6.5 Action	16
6.6 Metadata	17
6.7 Logical structure	21
6.8 Embedded files	23
6.9 Optional content	24
6.10 Use alternative presentations and transitions	24
6.11 Documentation requirements	24
Appendix A (Normative Appendix) How to Determine Transparency on the Page	25
Appendix B (Normative Appendix) Digital Signature Requirements in PDF/A	27
Appendix C (informative appendix) PDF/A best practices	28
Appendix D (informative appendix) Compilation of XFA data set	30
Appendix E (Normative Appendix) Related Documents	31
Appendix NA (informative appendix) Chinese and English vocabulary comparison	38
References	42

Foreword

GB/T 23286 "Document Management Long-term Preservation of Electronic Document File Format" is planned to be divided into several parts.

---Part 1. Use of PDF1.4 (PDF/A-1);

---Part 2. Use of ISO 32000-1 (PDF/A-2);

---Part 3. The use of ISO 32000-1 supporting embedded files (PDF/A-3).

This part is Part 3 of GB/T 23286.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

The use of the translation method in this section is equivalent to the adoption of ISO 19005-3.2012 "Document Management Long-term Preservation of Electronic Document File Format No. 3

Part. Use of ISO 32000-1 (PDF/A-3) that supports embedded files.

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 1988-1998 Seven-bit coded character set for information technology exchange (equiv ISO /IEC 646.1991)

---GB/T 13000-2010 Information Technology Universal Multi-octet Coded Character Set (UCS) (ISO /IEC 10646.2003, IDT)

---GB/T 23286.1-2009 Document Management Long-term Preserved Electronic Document File Format Part 1. PDF1.4 (PDF/

A-1) Use (ISO 19005-1.2005, IDT)

---GB/T 32010.1-2015 Document Management Portable Document Format Part 1. PDF1.7 (ISO 32000-1.2008,

IDT)

This section has made the following editorial changes.

---Added informative appendix NA.

Introduction

Portable Document Format (Portable Document Format, PDF) is a document digital format based on pages. PDF

Documents can be created natively, converted from other electronic formats, or passed from paper, microfilm, or other hardcopy formats

Digitally processed and reproduced. There are a large number of PDF files formed by

companies, governments, libraries, archives and other institutions and individuals all over the world

The need for long-term preservation, in order to ensure that these files can be effectively queried and utilized in the continuous technical update, it is necessary to

We are required to restrict it to have the necessary special attributes, which include not only the maintenance of the visual appearance of the document, but also the maintenance of documents such as

The logical organization of pages, chapters and paragraphs, the maintenance of machine-recoverable text flow read in natural reading order, and various management and preservation

Complete storage and maintenance of sexual and descriptive metadata, etc.

The GB/T 23286 series of standards are equivalent to the corresponding parts of ISO 19005, and the purpose of their formulation is to.

---Define a PDF-based file format, called PDF/A. This format provides a mechanism for long-term

The static visual appearance of files is independent of the tools and systems used to create, store, or present files.

---Define a framework for expressing the logical structure of electronic documents and other semantic information in qualified documents.

---Provide a framework for recording the background and history of electronic documents with metadata in qualified documents.

This section adds a new goal (in addition to the goals of Part 2), which is to allow PDF documents to serve as containers for other file formats.

So that a single physical file can not only maintain a consistent visual performance, but also maintain the effective performance of other information elements, including when creating

The original version, richer semantic format and other elements. This section does not deal with the long-term adaptation of other formats that may be embedded.

Usability.

These goals identify the set of PDF components that can be used in documents that conform to the PDF/A standard and their use forms

The restrictions to achieve.

PDF/A itself does not necessarily ensure that the visual appearance of the content accurately reflects the original materials used to create qualified documents; for example, using

The process for creating qualified files may replace fonts, readjust the text stream, sample images, or use lossy compression. Need to ensure that

Organizations that accurately represent the original materials may need to impose additional requirements on the process of generating qualified documents in addition to the requirements of this section.

For example, the situation reflected in the best practices in Appendix C. In addition, in order to be able to check whether the visual appearance of the document is correct, these

The organization should also implement relevant systems and practical measures.

PDF/A does not directly involve the basic content used for visual performance and whether the PDF/A file itself is authoritative. This

These authority are generally considered to be very important for legal, regulatory and governance purposes, but they are not within the scope of this section.

This part is an integral part of the management and technical environment that is conducive to the long-term preservation of electronic archives by organizations. Whether the organization can be

The implementation of the content of this part depends on whether it can be effectively implemented.

---The retention requirements of the organization's archive environment, the record management system and procedures specified in GB/T 26162.1;

--- Additional requirements and conditions necessary to ensure the long-term retention of electronic documents and their characteristics, including but not limited to ISO 14721, ISO / Requirements and conditions defined in TR15801 and GB /Z 23283-2009;

---Verify the quality assurance process necessary to meet the relevant requirements and conditions, such as verifying the quality and completeness of the converted source data Inspection system.

This section aims to promote the development of various applications related to reading, presenting, generating and verifying qualified documents. Based on the understanding of the application provider

Differences, different applications will adopt the different functional requirements proposed in this section to prepare, interpret and process qualified documents. However, it should be noted here

What is meant is that qualified application functions must be able to properly read and process documents of all compliance levels within the scope of compliance.

This part expands the functions of Part 2. Like Part 2, it is based on PDF version 1.7 (see