INTERNATIONAL STANDARD

**ISO/IEC 21320-1**

First edition
2015-10-15

# Information technology — Document Container File —

## Part 1: Core

*Technologies de l'information — Fichier conteneur de document — Partie 1: Données de base*



Reference number
ISO/IEC 21320-1:2015(E)



ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

# Contents

Page

**Foreword** ..... **iv**
**Introduction** ..... **v**
**1 Scope** ..... **1**
**2 Normative references** ..... **1**
**3 Terms and definitions** ..... **1**
**4 Requirements** ..... **2**
**5 Profile of Appnote** ..... **2**
5.1 General ..... 2
5.2 Annotations to Appnote ..... 2
**Annex A** (informative) **Informal summary** ..... **4**
**Annex B** (informative) **Filenames and interoperability** ..... **5**
**Bibliography** ..... **8**

# 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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

ISO/IEC 21320 consists of the following parts, under the general title *Information technology — Document Container File*:

— *Part 1: Core*



 

# Introduction

It is often useful to combine multiple digital resources into a single digital resource to make them easier to store and process. The combined digital resource may also use data compression to minimize the space needed for storage.

This part of ISO/IEC 21320 specifies a format for this purpose. The format is a compatible profile of that defined by the Zip Application Note of PKWARE® Inc.

The use of Zip-based archive files for digital documents is increasingly common. Within ISO/IEC JTC 1, there are the examples of ISO/IEC 26300 series and ISO/IEC 29500. Outside of the International Standardization system, there are similar uses such as those of the EPUB Open Container Format (from the IDPF) and Widget Packaging and XML Configuration (from the W3C).

The technology defined by the Zip Application Note has been in wide use in ICT industries for over twenty years, and the specification has been freely available for much of that time. However, it has never been formally standardized and this lack of standardization presents several challenges to standards (including ISO/IEC Standards) that wish to reference it, including the following:

— stability of reference: what is the correct reference to give for the Zip Application Note and how can it be ensured that this reference remains available?;

— intellectual property rights: what, if any, patents are necessary to implement this technology, and is there a subset that may be freely implemented?;

— cultural and linguistic adaptability: is the Zip Application Note sufficient by itself, or is additional expository material needed to define best practices for global use, e.g. the use of IRIs for file names?;

— interoperability within domain: is there a technology subset that will provide greater interoperability within the domain of Document Container Files than permitting all features of the Zip Application Note?.

# Information technology — Document Container File —

# Part 1:
# Core



## 1 Scope

This part of ISO/IEC 21320 specifies the core requirements for

— document container files, and

— implementations that produce and/or consume document container files.

This part of ISO/IEC 21320 normatively references the Zip File Format Specification version 6.3.3 of PKWARE® Inc. Document container files are conforming Zip files as specified by that document.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Each of the following documents has a unique identifier that is used to cite the document in the text. The unique identifier consists of the part of the reference up to the first comma.

ISO/IEC 10646:2014, *Information technology — Universal Coded Character Set (UCS)*

Appnote,[1] APPNOTE.TX — ZIP File Format Specification, PKWARE® Inc., September 2012

IETF RFC 1951,[2] DEFLATE Compressed Data Format Specification version 1.3, May 1996

## 3 Terms and definitions

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

**3.1**
**byte**
sequence of 8 bits

**3.2**
**digital resource**
sequence of *bytes* (3.1)

**3.3**
**document container file**
digital resource that conforms to this part of ISO/IEC 21320

**3.4**
**implementation**
processor that operates on *document container files* (3.3)

1) Available at http://www.pkware.com/documents/APPNOTE/APPNOTE-6.3.3.TXT

2) Available at http://www.ietf.org/rfc/rfc1951.txt