INTERNATIONAL STANDARD

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15200

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Information technology — Adaptive Lossless Data Compression algorithm (ALDC)

Technologies de l'information — Algorithme de compression de données d'adaptation sans pertes (ALDC)

Reference number
ISO/IEC 15200:1996(E)

Contents

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. 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.

International Standard ISO/IEC DIS 15200 was prepared by ECMA (as ECMA-222) 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.

Annexes A to D are for information only.

Introduction

In the past decades ISO/IEC have published numerous International Standards for magnetic tapes, magnetic tape cassettes and cartridges, as well as for optical disk cartridges. Those media developed recently have a very high physical recording density. In order to make optimal use of the resulting data capacity, lossless compression algorithms have been designed which allow a reduction of the number of bits required for the representation of user data.

These compression algorithms are registered by ECMA, the International Registration Authority established by ISO/IEC. The registration consists in allocating to each registered algorithm a numerical identifier which will be recorded on the medium and, thus, indicate which compression algorithm(s) has been used.

This International Standard is the third one for lossless compression algorithms. The two previous International Standards are:

ISO/IEC 11558:1992   *Information technology - Data compression for information interchange - Adaptive coding with embedded dictionary - DCLZ algorithm.*

ISO/IEC 12042:1993   *Information technology - Data compression for information interchange - Binary arithmetic coding algorithm.*

Information technology - Adaptive Lossless Data Compression algorithm (ALDC)

1   Scope

This International Standard specifies a lossless compression algorithm to reduce the number of bytes required to represent data. The algorithm is known as Adaptive Lossless Data Compression algorithm (ALDC). The numerical identifiers according to ISO/IEC 11576 allocated to this algorithm are:

ALDC 512-Byte History Buffer: 3

ALDC 1024-Byte History Buffer: 4

ALDC 2048-Byte History Buffer: 5

2   Conformance

A compression algorithm shall be in conformance with this International Standard if its output data stream satisfies the requirements of this International Standard.

3   Normative Reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 11576:1993, *Information technology - Procedure for the registration of algorithms for the lossless compression of data.*