

---

---

**Information technology — Coding of  
audio-visual objects —**

Part 4:

**Conformance testing**

AMENDMENT 15: Lossless coding of  
oversampled audio

*Technologies de l'information — Codage des objets audiovisuels*

*Partie 4: Essai de conformité*

*AMENDEMENT 15: Codage sans perte d'acoustique suréchantillonnée*

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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 document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 15 to ISO/IEC 14496-4:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC 14496-4:2004/Amd 15:2007

# Information technology — Coding of audio-visual objects —

## Part 4: Conformance testing

### AMENDMENT 15: Lossless coding of oversampled audio

In subclause 6.5.1 File name conventions, insert the following row into Table 29 after the row for SSC:

**Table 29 — File name conventions**

DST	dst_<tool>_<nchan>[_sig<sig>]	dst_<mode>_<tool>_<nchan>[_sig<sig>][_<chan>]
-----	-------------------------------	---

After subclause 6.6.19 SSC, add the following subclauses:

#### 6.6.20 DST (Lossless coding of oversampled audio)

##### 6.6.20.1 Compressed data

###### 6.6.20.1.1 Characteristics

Conformant DST compressed MPEG-4 data shall have the DST data stored as outlined in ISO/IEC 14496-3:2005.

###### 6.6.20.1.2 Test procedure

Each compressed data shall meet the syntactic and semantic requirements specified in ISO/IEC 14496-3. The decoded data shall also meet the requirements defined in ISO/IEC 14496-3. If a syntactic element is not listed below, no restrictions apply to that element. The **reserved** element shall be encoded with the value zero.

###### 6.6.20.1.2.1 Compressed MPEG-4 data payload

###### 6.6.20.1.2.1.1 AudioSpecificConfig

**audioObjectType**: Shall be encoded with the value 35.

**samplingFrequencyIndex**: Shall be encoded with the value 0xf.

**SamplingFrequency**: Shall be encoded with the value 64\*44100 or 128\*44100 or 256\*44100.

**channelConfiguration**: Shall be encoded with the value 0.

###### 6.6.20.1.2.1.2 DSTSpecificConfig

**N\_Channels**: Shall not be encoded with the value 0.

### 6.6.20.1.2.1.3 DST

**DST\_X\_Bit:** Shall be encoded with the value '0'.

### 6.6.20.1.2.1.4 Channel\_Segmentation

**Nr\_Of\_Segments:** Shall not exceed the value of 4 for the Filter\_Segmentation and the Filter\_And\_Ptable\_Segmentation, and shall not exceed the value of 8 for the Ptable\_Segmentation.

**Resolution:** Shall be encoded with a value in the range of [1 Frame\_length-MINSEGLN], with MINSEGLN as defined in ISO/IEC 14496-3:2005/Amd.6, 10.6.1.3.2.5.2.2.2.

**Scaled\_Length[Nr\_Of\_Segments]:** Shall be encoded with a value in the range of [1 Range], with Range as defined in ISO/IEC 14496-3:2005/Amd.6, 10.6.1.3.2.5.2.2.3.

### 6.6.20.1.2.1.5 Filter\_Coef\_Sets

**CC\_Method:** Shall not be encoded with the value '11'.

**CCM:** Shall not be encoded with the value 7.

### 6.6.20.1.2.1.6 Probability\_Tables

**PC\_Method:** Shall not be encoded with the value '11'.

**PCM:** Shall be encoded with a value in the range of [0 4].

## 6.6.20.2 Decoders

### 6.6.20.2.1 Characteristics

The object type DST has the Object Type ID 35, and the compressed MPEG-4 data syntax is defined in ISO/IEC 14496-3. The Audio Object Type DST contains the DST tool.

### 6.6.20.2.2 DST conformance test procedure

Test compressed data and reference decoder output signals are provided to apply the conformance criterion using the procedure described in the following sub clause.

The conformance of the DST decoder tool can be checked with compressed data for the DST object type.

For lossless compressed data the conformance criterion is bit exact reproduction of the reference decoder output, this means that all bits in the output of the test decoder are identical to the corresponding bits in the output of the reference decoder.

To be called a conforming DST decoder, the required conformance criterion must be met for all test compressed data listed in subclause 6.6.20.2.3.