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**AMENDMENT 37**  
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## **Information technology — Coding of audio-visual objects —**

### **Part 4: Conformance testing**

**AMENDMENT 37: Additional file format  
conformance**

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

*Partie 4: Essai de conformité*

*AMENDEMENT 37: Conformité de format de fichier additionnel*

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## Foreword

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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 37 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*.

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# Information technology — Coding of audio-visual objects —

## Part 4: Conformance testing

### AMENDMENT 37: Additional file format conformance

*Add the files to the repository, replacing the spreadsheet summary of features.*

*In 4.7.6, add the following subclauses after 4.7.6.31:*

#### 4.7.6.32 compact-no-code-fec-1.iso3

This file contains one JPEG file stored as an item. Compact No-Code FEC is used and the file is partitioned into one source block. The file contains also one hint track for FLUTE transmission.

#### 4.7.6.33 compact-no-code-fec-2.iso3

This file contains one JPEG file stored as items. Compact No-Code FEC is used and the file is partitioned into three source blocks. The file contains also one hint track for FLUTE transmission.

#### 4.7.6.34 mbms-fec.iso3

This file contains two JPEG files stored as items. MBMS-FEC is used and both files are partitioned into one source block and several sub-blocks. Parity symbols for the source block are stored as an FEC reservoir item. The file contains also three hint tracks for FLUTE transmission with FEC overheads 10 %, 20 % and 40 %. Each hint track defines transmission of both JPEG files over one FLUTE channel.

#### 4.7.6.35 fragment-random-access-1.mp4

This uses movie fragment random access boxes (8.37: movie fragment random access, 8.38: track fragment random access, 8.39: movie fragment random access offset in ISO/IEC 14496-12:2008). These boxes help readers to search where random access points are.

There are random access points at 1-sec interval.

For the purpose of reference, the initial 1-second movie is followed by a 14-second movie fragment. The movie consists of audio and video tracks. Fragment aware readers should play 15.3 seconds of content, fragment-unaware readers only 1 second.

#### 4.7.6.36 fragment-random-access-2.mp4

This uses movie fragment random access boxes as 1.4.

There are random access points at 5-sec interval.

For the purpose of reference, the initial 1-second movie is followed by a 10.1-second movie fragment. The movie consists of audio and video tracks. Fragment aware readers should play 15.1 seconds of content, fragment-unaware readers only 5 seconds.

#### 4.7.6.37 pdin\_example.3gp

This file contains one video track with AVC and a progressive download information box specifying required initial delays for six different download rates. The download rates 5 106, 7 659, 10 213, 12 766, 15 319 and 20 426 bytes per second require initial delays of 20 808, 7 206, 1 089, 652, 396 and 200 seconds, respectively.

#### 4.7.6.38 rs\_example.3gp

This file contains three video tracks with AVC at different bitrates, three audio tracks with HE-AACv2 at different bitrates, track selection box, and rate share information with two operation points. For the first operation point (100 kilobits per second), the target rate shares are 20 % for audio and 80 % for video. For the second operation point (160 kilobits per second), the target rate share weights are 80 and 140 for audio and video, respectively. As the sum is not 100 for the second case, the numbers correspond to weights that need to be normalized by the server/player. Depending on the available bitrate, the server selects which tracks to stream/play.