INTERNATIONAL STANDARD

ISO/IEC 14496-5

Second edition
2001-12-15

AMENDMENT 26
2011-12-01

Information technology — Coding of audio-visual objects —

Part 5: Reference software

AMENDMENT 26: Reference software for scalable complexity 3D mesh coding in 3DG compression model

Technologies de l'information — Codage des objets audiovisuels —

Partie 5: Logiciel de référence

AMENDEMENT 26: Logiciel de référence d'encodage de maille 3D de complexité atteignable dans le modèle de compression 3DG

Reference number
ISO/IEC 14496-5:2001/Amd.26:2011(E)

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
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

Amendment 26 to ISO/IEC 14496-5:2001 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This Amendment introduces a Reference Software for Scalable Complexity 3D Mesh Coding in 3DG Compression Model. This Amendment deals with the reference software of the SC3DMC in 3DGCM tool.

Information technology — Coding of audio-visual objects —

Part 5:
Reference software

AMENDMENT 26: Reference software for scalable complexity 3D mesh coding in 3DG compression model

Add 7.4, Reference Software for the Scalable Complexity 3D Mesh Compression in 3D Graphics compression Model (SC3DMC in 3DGCM):

7.4 Reference Software for the Scalable Complexity 3D Mesh Compression in 3D Graphics compression Model (SC3DMC in 3DGCM)

7.4.1 Introduction

This is the description of the reference software for SC3DMC in 3DGCM. In ISO/IEC 14496-5:2001/Amd.22, the general description of reference software for ISO/IEC 14496-25 (called as MP25) is explained. This Subclause describes SC3DMC method based on the MP25.

7.4.2 Description of Classes

This Subclause describes the new classed added for SC3DMC.

Class	Files	Folder Structure	Description
QBCR_Decoder	QBCR_Decoder.h	Libraries\SC3DMC\include	Class containing QBCR decoding function
	QBCR_Decoder.cpp	Libraries\SC3DMC\QBCR_Decoder	
QBCR_Encoder	QBCR_Encoder.h	Libraries\SC3DMC\include	Class containing QBCR encoding function
	QBCR_Encoder.cpp	Libraries\SC3DMC\QBCR_Encoder	
SC3DMC_Decoder	SC3DMC _Decoder.h	Libraries\SC3DMC\include	Main Class of SC3DMC decoder. It decodes the header and calls corresponding functions.
	SC3DMC_Decoder.cpp	Libraries\SC3DMC\ SC3DMC _Decoder	
SC3DMC_Encoder	SC3DMC_Encoder.h	Libraries\SC3DMC\include	Main Class of SC3DMC encoder. It decodes the header and calls corresponding functions.
	SC3DMC_Encoder.cpp	Libraries\SC3DMC\ SC3DMC_EncoderV3	
SVA_Decoder	SVA _Decoder.h	Libraries\SC3DMC\include	Class containing SVA decoding function
	SVA _Decoder.cpp	Libraries\SC3DMC\ SVA _Decoder	
SVA_Encoder	SVA _Encoder.h	Libraries\SC3DMC\include	Class containing SVA encoding function
	SVA _Encoder.cpp	Libraries\SC3DMC\ SVA _Encoder	
TFanDecoder	TFanDecoder.h	Libraries\SC3DMC\include	Class containing TFAN decoding function
	TFanDecoder.cpp	Libraries\SC3DMC\ TFanDecoder	
TFanEncoder	TFanEncoder.h	Libraries\SC3DMC\include	Class containing TFAV encoding function
	TFanEncoder.cpp	Libraries\SC3DMC\TFanEncoder	
UTILS_SC3DMC	Utility header	Libraries\SC3DMC\include	Class containing utility function such as prediction and entropy code.
	Utility files	Libraries\SC3DMC\UTILS_SC3DMC	

7.4.3 Updated GUI

This Subclause describes the updates of encoding/decoding GUI. Figure AMD26.1 illustrates main UI of reference software.

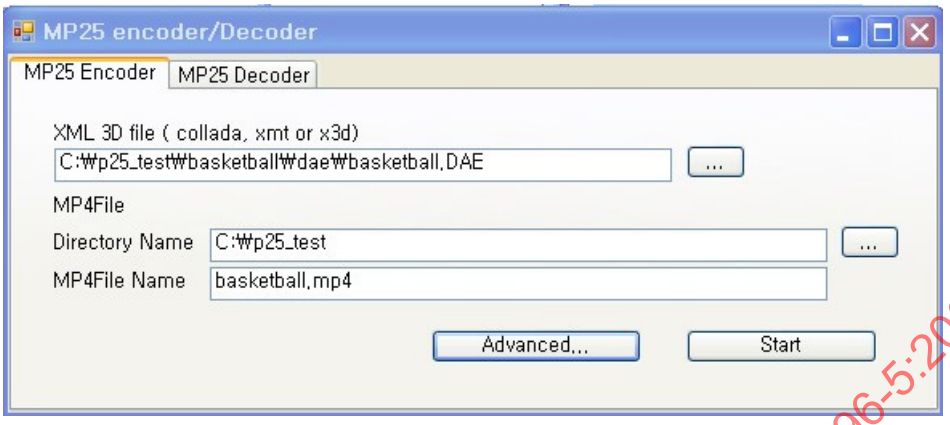

Figure AMD26.1a — MP25 encoder setting

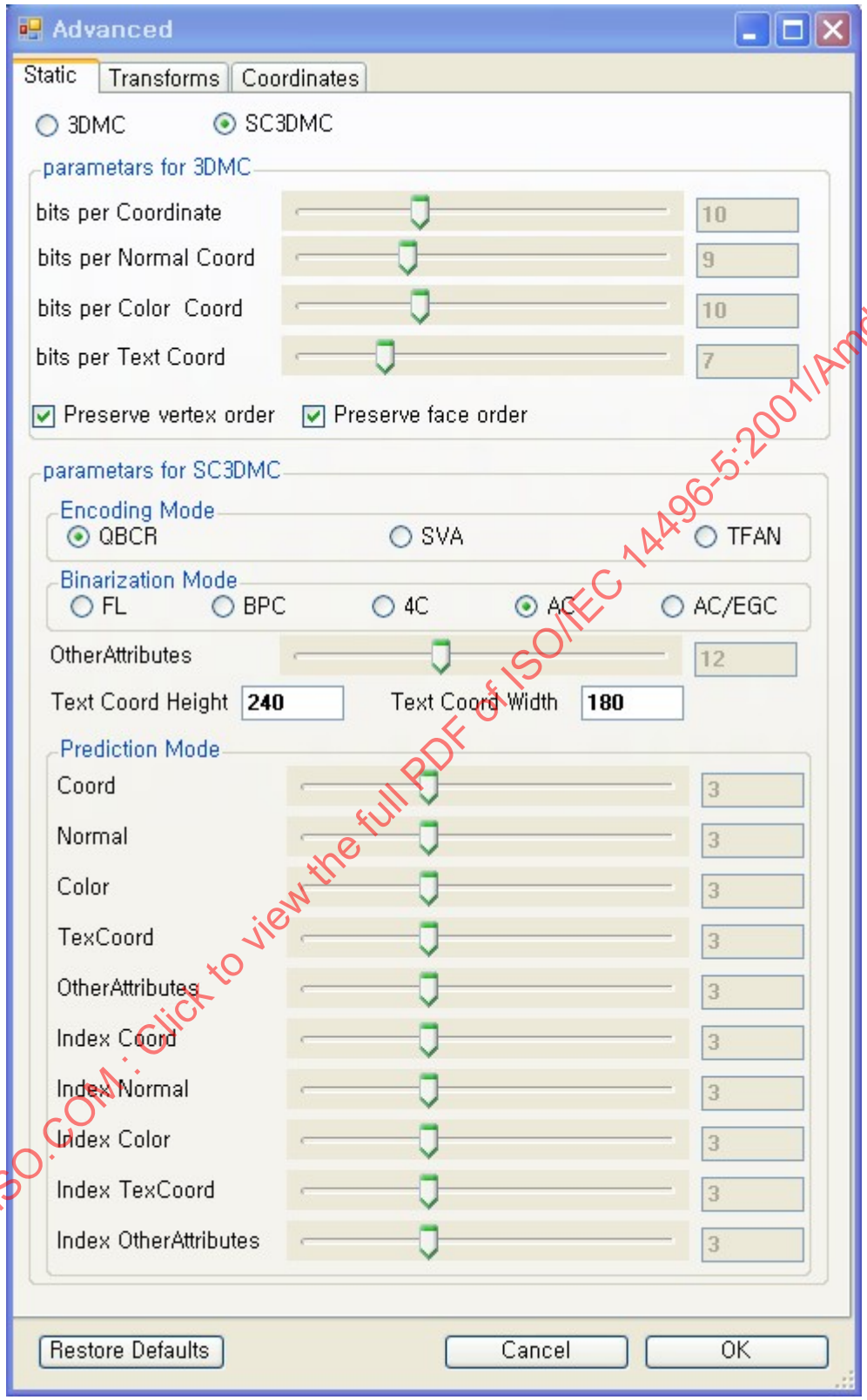

Figure AMD26.1b — MP25 encoder setting: Advanced, Set as SC3DMC

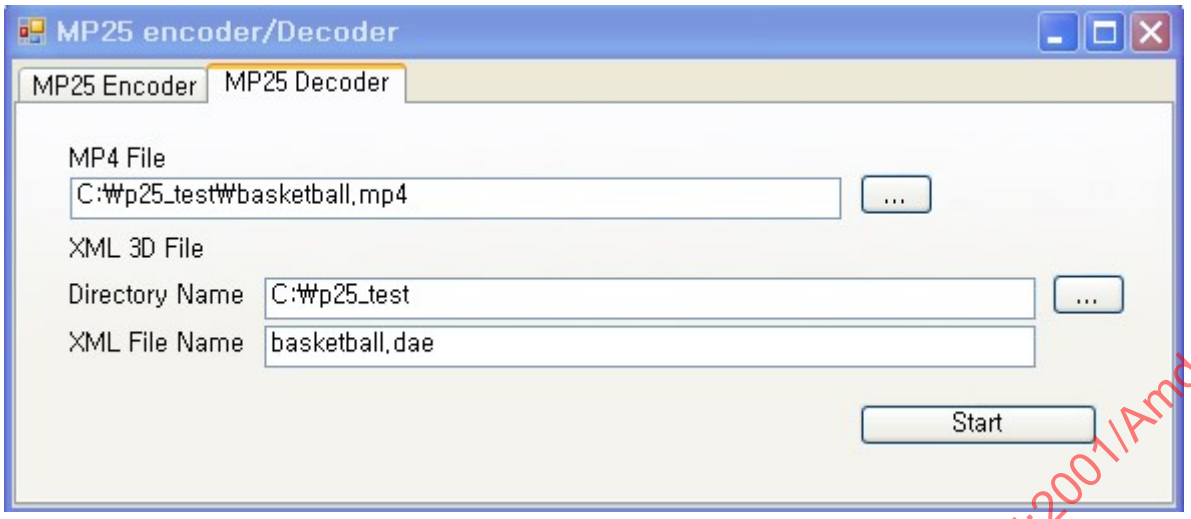

Figure AMD26.2 — MP25 decoder setting

In this case, it is assumed that

- Original Collada file that should be encoded is located at “C:\p25_test\basketball\dae\basketball.DAE”
- Compressed MP4 file will be located at “C:\p25_test\ basketball.mp4”
- Encoding mode is SC3DMC
  - The detailed option is explained in ISO/IEC 14496-16
- Decoded Collada file will be located in “C:\p25_test\ basketball.dae”