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**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*

ISO/IEC 14496-5:2001/Amd.26:2011



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## Foreword

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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.

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# 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.

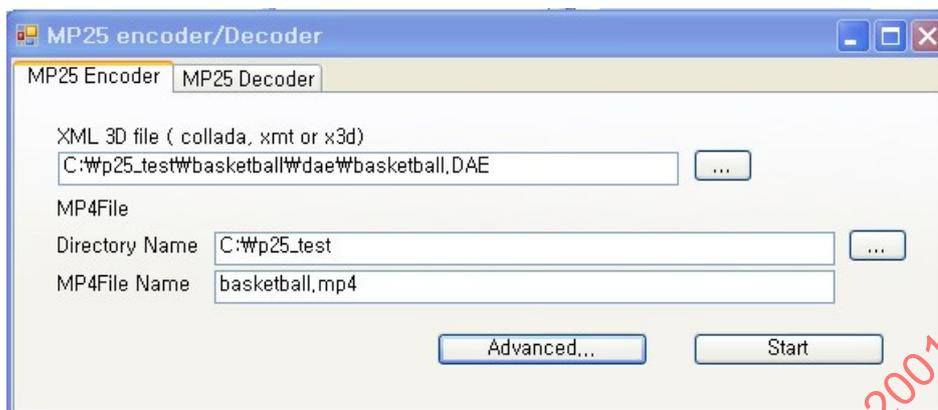


Figure AMD26.1a — MP25 encoder setting

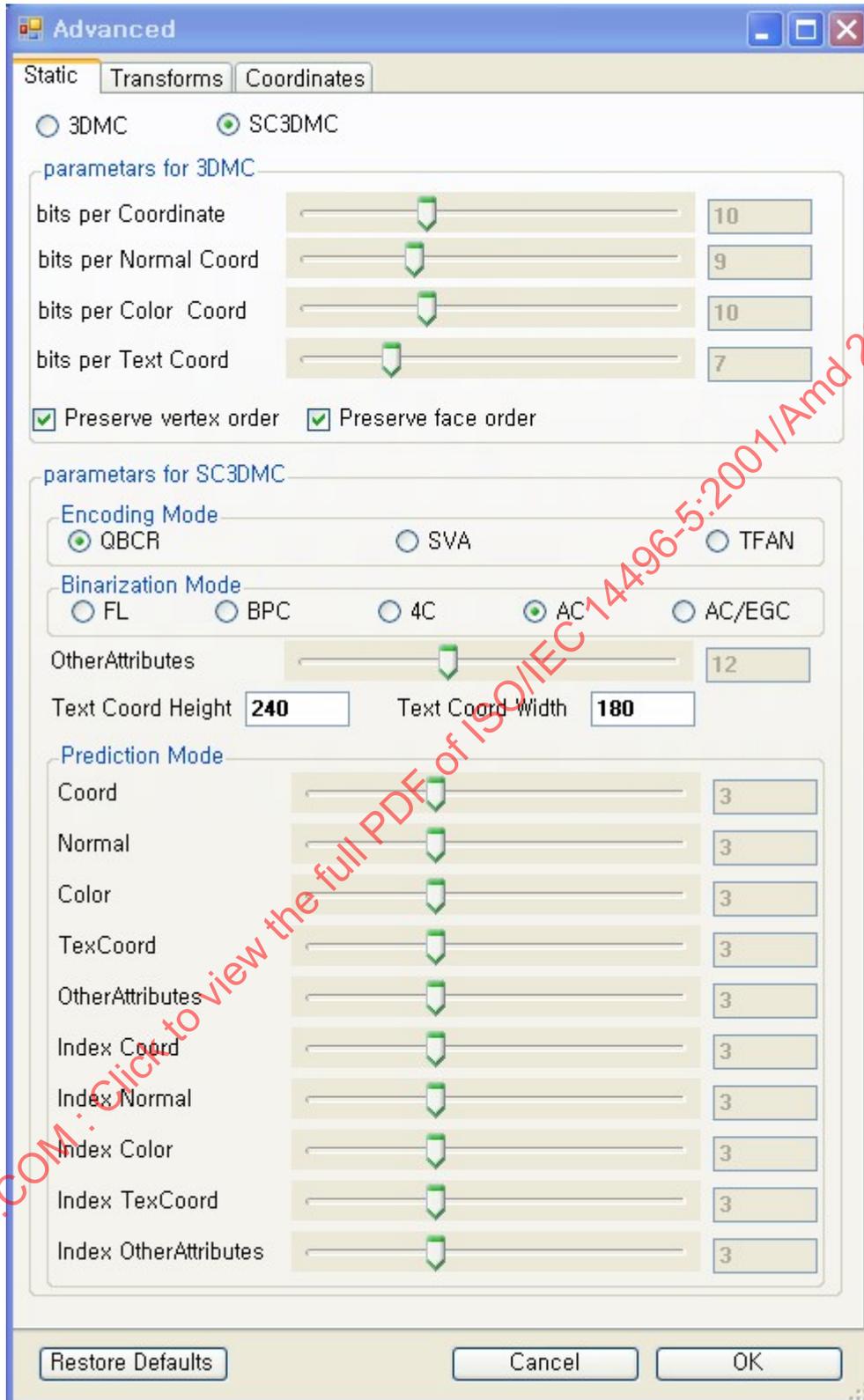


Figure AMD26.1b — MP25 encoder setting: Advanced, Set as SC3DMC

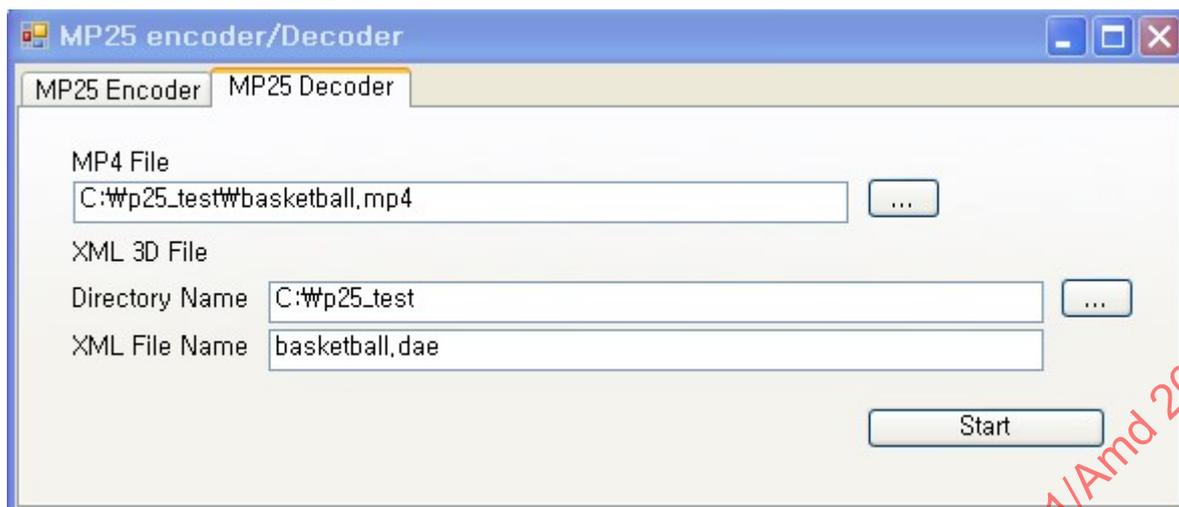


Figure AMD26.2 — MP25 decoder setting

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”