ISO/IEC 15444-10:2011-12 (E)

Information technology - JPEG 2000 image coding system: Extensions for three-dimensional data

Contents

Page

1 Scope 1
2 Normative references 1
3 Terms and definitions 1
4 Abbreviations 2
5 Symbols (and abbreviated terms) 2
6 General description 3
Annex A – Codestream syntax, extension 4
A.1 Extended capabilities 4
A.2 Extensions to Rec. ITU-T T.800 | ISO/IEC 15444-1 and Rec. ITU-T T.801 | ISO/IEC 15444-2 marker segment parameters 5
Annex B – Image and compressed image data ordering, extension 16
B.1 Introduction 16
B.2 Introduction to image data structure concepts 16
B.3 Component mapping to the reference grid 16
B.4 Image area division into tiles and tile-components 16
B.5 Transformed tile-component division into resolution levels and sub-bands 18
B.6 Division of resolution levels into precincts 19
B.7 Division of sub-bands into code-blocks 19
B.8 Packets 20
B.9 Packet header information coding 20
B.10 Progression order 21
Annex C – Coefficient bit modelling 23
C.1 Introduction 23
C.2 Code-block scan pattern within code-blocks, extended 23
C.3 Context model updates 23
Annex D – Discrete wavelet transformation of tile-components 24
D.1 Introduction 24
D.2 Tile-component parameters 24
D.3 Discrete wavelet transformations 24
D.4 Inverse discrete wavelet transformation 24
D.5 Forward transformation (informative) 31
Annex E – Quantization 38
E.1 Introduction 38
E.2 Inverse quantization procedure modifications 38
Annex F – Coding of images with regions-of-interest, extension 39
F.1 Introduction 39
F.2 Decoding of ROI 39
F.3 Encoding with ROI (informative) 40
F.4 Region-of-interest mask generation 42
F.5 Remarks on region-of-interest coding 44
Annex G – Examples and guidelines, extensions 45
G.1 Rate-distortion modelling 45
Bibliography 46