INTERNATIONAL STANDARD ISO/IEC 15444-1:2004

TECHNICAL CORRIGENDUM 1

Published 2007-07-15

Information technology — JPEG 2000 image coding system: Core coding system

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Système de codage d'image JPEG 2000: Système de codage noyau

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 15444-1:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*, in collaboration with ITU-T. The identical text is published as ITU-T Rec. T.800 (2002)/Cor.1 (01/2007).

ICS 35.040

Ref. No. ISO/IEC 15444-1:2004/Cor.1:2007(E)

Published in Switzerland

INTERNATIONAL STANDARD
ITU-T RECOMMENDATION

Information technology – JPEG 2000 image coding system:
Core coding system

Technical Corrigendum 1

1) Table I.2

Replace the Image Header box Comments field with the following text:

This box specifies aspects of the reference grid geometry, number of components and bit depth.

2) Annex I.5.3

*Replace the second sentence of the **ihdr** item with the following text*:

This box specifies information about the reference grid geometry, bit depth, and number of components.

3) Annex I.5.3.1

a) *Add the following paragraph to the end of the HEIGHT item*:

The HEIGHT is not always the same as the default image height. See I.5.3.1.1 for formulae specifying the default image dimensions when no other rendering information is present. The HEIGHT value will always be an upper bound on the default image height.

b) *Add the following paragraph to the end of the WIDTH item*:

The WIDTH is not always the same as the default image width. See I.5.3.1.1 for formulae specifying the default image dimensions when no other rendering information is present. The WIDTH value will always be an upper bound on the default image width.

c) *Add a new clause I.5.3.1.1*

I.5.3.1.1 Default Image Dimensions

In instances where only image samples for individual components are needed, refer directly to the component sample dimension equation B-2.

However, when some rendering is required, lacking other rendering or expansion directives, the default image dimensions aim to maintain the image area aspect ratio and are computed from the codestream SIZ marker as a function of, M, the greatest common divisor (gcd) of all the subsampling factors (XRsiz^c, YRsiz^c) for all components of the image. Specifically:

$$M = \text{gcd}\{XRsiz^c, YRsiz^c \mid \text{for all c}, 0 \le c < Csiz\} \tag{I-1}$$

And the default image dimensions are:

$$(\text{width, height}) = \left(\left\lceil \frac{Xsiz}{M} \right\rceil - \left\lceil \frac{XOsiz}{M} \right\rceil, \left\lceil \frac{Ysiz}{M} \right\rceil - \left\lceil \frac{YOsiz}{M} \right\rceil \right) \tag{I-2}$$