



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

## Part 1:

### TECHNICAL CORRIGENDUM 4

*Technologies de l'information — Système de codage d'images JPEG 2000: Système de codage de noyau —  
Partie 1:*

*RECTIFICATIF TECHNIQUE 4*

Technical Corrigendum 4 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*.

1) In subclause A.2 (Table A.2, 16<sup>th</sup> to 21<sup>st</sup> row) change

|                                                       |     |        |             |             |
|-------------------------------------------------------|-----|--------|-------------|-------------|
| Pointer marker segments                               | TLM | 0xFF55 | optional    | not allowed |
| Tile-part lengths                                     | PLM | 0xFF57 | optional    | not allowed |
| Packet length, main header                            | PLT | 0xFF58 | not allowed | optional    |
| Packet length, tile-part header                       | PPM | 0xFF60 | optional    | not allowed |
| Packed packet headers, main header <sup>c)</sup>      | PPT | 0xFF61 | not allowed | optional    |
| Packed packet headers, tile-part header <sup>c)</sup> | TLM | 0xFF55 | optional    | not allowed |

to

| Pointer marker segments                               |     |        |             |             |
|-------------------------------------------------------|-----|--------|-------------|-------------|
| Tile-part lengths                                     | TLM | 0xFF55 | optional    | not allowed |
| Packet length, main header                            | PLM | 0xFF57 | optional    | not allowed |
| Packet length, tile-part header                       | PLT | 0xFF58 | not allowed | optional    |
| Packed packet headers, main header <sup>c)</sup>      | PPM | 0xFF60 | optional    | not allowed |
| Packed packet headers, tile-part header <sup>c)</sup> | PPT | 0xFF61 | not allowed | optional    |

2) In subclause B.3 (Figure B.3, description of sample coordinate) change

For (XR<sub>siz</sub>, YR<sub>siz</sub>) = (3,2):

$$(x_0, y_0) = \left( \left\lceil \frac{3}{2} \right\rceil, \left\lceil \frac{2}{2} \right\rceil \right) = (1, 1)$$

to

For (XR<sub>siz</sub>, YR<sub>siz</sub>) = (3,2):

$$(x_0, y_0) = \left( \left\lceil \frac{3}{3} \right\rceil, \left\lceil \frac{2}{2} \right\rceil \right) = (1, 1)$$

3) In subclause B.3 (Equation B-6) change

$$p = \text{mod}(t, \text{numXtiles}) \quad q = \left\lceil \frac{t}{\text{numXtiles}} \right\rceil$$

to

$$p = \text{mod}(t, \text{numXtiles}) \quad q = \left\lfloor \frac{t}{\text{numXtiles}} \right\rfloor$$

4) In subclause C.2.4 (Figure C.7, 2<sup>nd</sup> conditional symbol) change

“A<Qe(I(CX))”

to

“A<Qe(I(CX))?”

5) In subclause C.2.7 (Figure C.9, 2<sup>nd</sup> generic processing step) change

“C=C AND 0x7FFFFFF?”

to

“C=C AND 0x7FFFFFF”

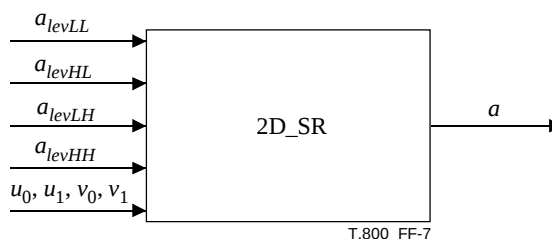
6) In subclause C.2.7 (Figure C.9, 4<sup>th</sup> generic processing step on the right side) change

“BP=B+1  
B=C>>20  
C=C AND 0xFFFF  
CT=7”

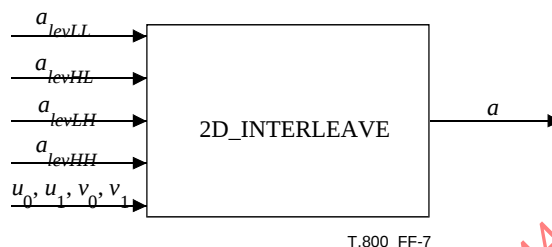
to

“BP=B+1  
B=C>>20  
C=C AND 0xFFFF  
CT=7”

7) In subclause F.3.3 (Figure F.7) change



to



8) In subclause F3.6 (2<sup>nd</sup> paragraph) change

“For signals of length one (i.e.,  $i_0 = i_1 - 1$ ), the 1D\_SR procedure sets the value of  $X(i_0)$  to  $X(i_0)$  if  $i_0$  is an even integer, and to  $X(i_0) = Y(i_0)/2$  if  $i_0$  is an odd integer.”

to

“For signals of length one (i.e.,  $i_0 = i_1 - 1$ ), the 1D\_SR procedure sets the value of  $X(i_0)$  to  $Y(i_0)$  if  $i_0$  is an even integer, and  $X(i_0)$  to  $Y(i_0)/2$  if  $i_0$  is an odd integer.”

9) In subclause F3.7 (last paragraph) change

“Values equal to or greater than those given in Tables F.2 and F.3 will produce the same array X at the output of the 1D\_IFILTR procedure of Figure F.14.”

to

“Values equal to or greater than those given in Tables F.2 and F.3 will produce the same array X at the output of the 1D\_FILTR procedure of Figure F.14.”

10) In subclause 3.8 (Figure F.16, title) change

“Figure F.16 – Parameters of the ID\_FILTR procedure”

to

“Figure F.16 – Parameters of the 1D\_FILTR procedure”

11) In subclause F.3.8.1 (first paragraph) change

“The 1D\_FILT5-3R procedure uses lifting-based filtering in conjunction with rounding operations.”

to

“The 1D\_FILT<sub>5-3R</sub> procedure uses lifting-based filtering in conjunction with rounding operations.”

12) In subclause F.3.8.2 (last paragraph) change

“The values of  $X(k)$  are such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTR<sub>I</sub> procedure.”

to

“The values of  $X(k)$  are such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTR<sub>9-71</sub> procedure.”

13) In subclause F.4.1 (Figure F.19, 1<sup>st</sup> generic processing step) change

$$lev1 =$$

$$a_{0LL}(u, v) = l(u, v)$$

to

$$lev = 1$$

$$a_{0LL}(u, v) = l(u, v)$$

14) In subclause F.4.8.1 (Equation F-9) change

$$Y(2n+1) = X_{ext}(2n+1) - \left\lfloor \frac{X_{ext}(2n) + X_{ext}(2n+2)}{4} \right\rfloor$$

to

$$Y(2n+1) = X_{ext}(2n+1) - \left\lfloor \frac{X_{ext}(2n) + X_{ext}(2n+2)}{2} \right\rfloor$$

15) In subclause F.4.8.1 (last paragraph) change

“The values of  $Y(k)$  such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTD<sub>R</sub> procedure.”

to

“The values of  $Y(k)$  such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTD<sub>5-3R</sub> procedure.”

16) In subclause F.4.8.2 (title) change

“The 1D\_FILTD<sub>I</sub> procedure (informative)”

to

“The 1D\_FILTD<sub>9-71</sub> procedure (informative)”

17) In subclause F.4.8.2 (last paragraph) change

“The values of such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTD<sub>I</sub> procedure.”

to

“The values of such that  $i_0 \leq k < i_1$  form the output of the 1D\_FILTD<sub>9-71</sub> procedure.”

18) In subclause J.4.1 (Table J.7, 3<sup>rd</sup> row) change

| $a_{2HH}(u, v)$ | 0  | 1 | 2 |
|-----------------|----|---|---|
| 0               | -1 | 0 | 0 |
| 1               | 0  | 1 | 0 |
| 2               | 0  | 0 | 0 |
| 3               | 0  | 0 | 0 |