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TECHNICAL CORRIGENDUM 2

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Information technology — Coding of audio-visual objects —

Part 3:
Audio

TECHNICAL CORRIGENDUM 2

Technologies de l'information — Codage des objets audiovisuels —

Partie 3: Codage audio

RECTIFICATIF TECHNIQUE 2

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In subclause 8.5.1, replace Table 8.19 with:

Table 8.19 – Channel configuration in case channelConfiguration == 2

mode_ext	Full channel configuration	nrof_channels
00	Dual mono (ch0=left, ch1=right)	2
01	Parametric Stereo	1
10	Reserved	Na
11	Reserved	Na

In subclause 8.5.2, replace:

s_phi[sf][ch][n] – For sub-frame sf and channel ch, this represents the phase parameter of the n-th sinusoid. This value is converted into a phase value in radians in the range [-π, π> conforming to

$$sp_q[n] = 2 \cdot sp_e \cdot \text{s\_phi[sf][ch][n]},$$

where sp_e represents the absolute phase error ($sp_e = \frac{\pi}{32}$) and sp_q represents the dequantized absolute phase (in radians) The allowed range for s_phi is [-16, 15]; the representation level +16 is represented by –16 (because +π == -π).

with:

s_phi[sf][ch][n] – For sub-frame sf and channel ch, this represents the phase parameter of the n-th sinusoid. This value is converted into a phase value in radians in the range [-π, π> conforming to

$$sp_q[n] = 2 \cdot sp_e \cdot \text{s\_phi[sf][ch][n]},$$

where sp_e represents the absolute phase error ($sp_e = \frac{\pi}{32}$) and sp_q represents the dequantized absolute phase (in radians). The allowed range for s_phi is [-16, 15].

In subclause 8.5.2, replace:

The default and the fine quantization grids for IID, iid_quant = %0 and iid_quant = %1 are as provided in 8.B.18 and 8.B.17 respectively.

with:

The default and the fine quantization grids for IID, iid_quant = %0 and iid_quant = %1 are as provided in Table 8.25 and Table 8.26 respectively.

In subclause 8.5.2, replace:

enable_ext – The PS extension layer is enabled using the enable_ext bit. If it is set to %1 the IPD and OPD parameters are sent. If it's disabled, i.e. %0, the extension layer is skipped.

with:

enable_ext – The PS extension layer is enabled using the enable_ext bit. If it is set to %1 the IPD and OPD parameters are sent. If it is disabled, i.e. %0, the extension layer is skipped and **enable_ipdopd** is set to %0.

In subclause 8.5.2, replace:

iid_dt[e] – This flag describes for envelope index e, whether the IID parameters are coded differentially over time (iid_dt==%1) or over frequency (iid_dt==%0). In the case iid_mode is different from the previous envelope (e-1), iid_dt[e] shall have the value 0% forcing frequency differential coding.

with:

iid_dt[e] – This flag describes for envelope index e, whether the IID parameters are coded differentially over time (iid_dt==%1) or over frequency (iid_dt==%0). In the case iid_mode of the current ps_data() element is different from iid_mode of the previous ps_data() element, iid_dt[0] shall have the value 0% forcing frequency differential coding.

In subclause 8.5.2, replace:

icc_dt[e] – This flag describes for envelope index e, whether the ICC parameters are coded differentially over time (icc_dt==%1) or over frequency (icc_dt==%0). In the case icc_mode is different from the previous envelope (e-1), icc_dt[e] shall have the value 0% forcing frequency differential coding.

with:

icc_dt[e] – This flag describes for envelope index e, whether the ICC parameters are coded differentially over time (icc_dt==%1) or over frequency (icc_dt==%0). In the case icc_mode of the current ps_data() element is different from icc_mode of the previous ps_data() element, icc_dt[0] shall have the value 0% forcing frequency differential coding.

In subclause 8.5.2, replace:

enable_ipdopd – The application of IPD and OPD parameters in the bit-stream is denoted by enable_ipdopd. If set (enable_ipdopd==%1) IPD and OPD parameters are sent, if disabled (enable_ipdopd==%0) no IPD and OPD parameters are sent for the current frame in the bit-stream. The quantization grid for both IPD and OPD is provided in Table 8.31. If no IPD or OPD data is sent in the bit-stream, all IPD and OPD parameters are set to 0 (i.e. index=0).

with:

enable_ipdopd – The application of IPD and OPD parameters in the bit-stream is denoted by enable_ipdopd. If set (enable_ipdopd==%1) IPD and OPD parameters are sent, if disabled (enable_ipdopd==%0) no IPD and OPD parameters are sent for the current frame in the bit-stream. In the case enable_iid==%0, enable_ipdopd shall not be set to %1. The quantization grid for both IPD and OPD is provided in Table 8.31. If no IPD or OPD data is sent in the bit-stream, all IPD and OPD parameters are set to 0 (i.e. index=0).

In subclause 8.5.2, replace:

ipd_dt[e] – This flag describes for envelope index e, whether the IPD parameters are coded differentially over time (ipd_dt==%1) or over frequency (ipd_dt==%0). In the case iid_mode is different from the previous envelope (e-1), ipd_dt[e] shall have the value 0% forcing frequency differential coding.

with:

ipd_dt[e] – This flag describes for envelope index e, whether the IPD parameters are coded differentially over time (ipd_dt==%1) or over frequency (ipd_dt==%0). In the case iid_mode of the current ps_data() element is different from iid_mode of the previous ps_data() element, ipd_dt[0] shall have the value 0% forcing frequency differential coding.

In subclause 8.5.2, replace:

opd_dt[e] – This flag describes for envelope index e, whether the OPD parameters are coded differentially over time (opd_dt==%1) or over frequency (opd_dt==%0). In the case iid_mode is different from the previous envelope (e-1), opd_dt[e] shall have the value 0% forcing frequency differential coding.

with:

opd_dt[e] – This flag describes for envelope index e, whether the OPD parameters are coded differentially over time (opd_dt==%1) or over frequency (opd_dt==%0). In the case iid_mode of the current ps_data() element is different from iid_mode of the previous ps_data() element, opd_dt[0] shall have the value 0% forcing frequency differential coding.

In subclause 8.5.2, ipd_par_df[e][b], replace:

where ipd_par[e][b-1] represents the IPD index of the previous IPD value for envelope e. The IPD value *ipd*[*b*] is obtained by using ipd_par[e][b] as an index to Table 8.28.

with:

where ipd_par[e][b-1] represents the IPD index of the previous IPD value for envelope e. The IPD value *ipd*[*b*] is obtained by using ipd_par[e][b] as an index to Table 8.31.

In subclause 8.5.2, opd_par_df[e][b], replace:

where opd_par[e][b-1] represents the OPD index of the previous OPD value for envelope e. The OPD value *opd*[*b*] is obtained by using opd_par[e][b] as an index to Table 8.28.

with:

where opd_par[e][b-1] represents the OPD index of the previous OPD value for envelope e. The OPD value *opd*[*b*] is obtained by using opd_par[e][b] as an index to Table 8.31.

In subclause 8.6.2.2, replace:

For a continuation (sf = [$K+1$, $K+\kappa-1$]), the representation levels s_delta_cont_freq_pha[sf][ch][n] are converted to a quantized prediction error $\Delta[sf][ch[n]$ using Table 8.35 with index == 2.

with:

For a continuation (*sf* = [*K+1*, *K*+κ*-1*]), the representation levels s_delta_cont_freq_pha[sf][ch][n] are converted to a quantized prediction error Δ[*sf*][*ch*][*n*] using Table 8.35 with index == 2.

In subclause 8.6.2.2, replace:

In order to avoid very small or very large entries in prediction error, the adaptation is only done if the absolute value of the inner level, 0.75*c*[*sf+1*][*ch*][*p*], is between π/128 and 3π/8. In the case were the inner level is less than or equal to π/128 or greater than or equal to 3π/8, the scale factor *c*[*sf+1*][*ch*][*p*] is set to *c*[*sf*][*ch*][*n*]. This is illustrated in Table 8.35.

with:

In order to avoid very small or very large entries in prediction error, the adaptation is only done if the absolute value of the inner level, 0.75*c*[*sf+1*][*ch*][*p*], is between π/128 and 3π/8.

In subclause 8.6.3.3.4, replace:

where $\mathrm{k} = [\mathrm{n\_nrof\_den} - 1..0]$ and

with:

where $\mathrm{m} = [\mathrm{n\_nrof\_den} - 1..0]$ and

In subclause 8.6.4.6.1, substitute Table 8.44 by:

Table 8.44 - The number of stereo bands depends on the number of parameters for IID and ICC.

Number of IID parameters	number of ICC parameters	number of stereo bands
10	10	20 (i.e., 10,20 stereo band configuration)
10	20	
20	10	
20	20	
10,20	34	34
34	10,20	
34	34	

In subclause 8.6.4.6.1, replace:

The averaging process denoted by e.g. (2*idx_0 + idx_1)/2 in Table 8.45 and Table 8.46 is carried out for the integer index representation idx_k of the IID or ICC parameters prior to dequantization, according to ANSI-C integer arithmetic.

with:

The averaging process denoted by e.g. (idx_0 + idx_1)/2 in Table 8.45 and (2*idx_0 + idx_1)/2 Table 8.46 is carried out for the integer index representation idx_k of the IID or ICC parameters prior to dequantization, according to ANSI-C integer arithmetic.

Replace in subclause 8.6.4.6.2:

In order to generate the QMF subband signals for the subband samples $n = n_e + 1 \ldots n_{e+1}$ the parameters at position n_e and n_{e+1} are required as well as the subband domain signals $s_k(n)$ and $d_k(n)$ for $n = n_e + 1 \ldots n_{e+1}$ (see Figure 8.25). For IPD/OPD, the parameters at position n_{e-1} are needed in addition. n_e represents the start position for envelope e. In the case frameclass == %1 (VAR_BORDERS), the border positions n_e are obtained by borderposition[e]. In the case frameclass == %0 (FIX_BORDERS), the border positions n_e are obtained by means of

$$n_e = \left\lfloor \frac{numQMFSlots*(e+1)}{num\_env} \right\rfloor - 1, \qquad e = [0,\ldots,num\_env-1].$$

with:

In order to generate the QMF subband signals for the subband samples $n = n_e + 1 \ldots n_{e+1}$ the parameters at position n_e and n_{e+1} are required as well as the subband domain signals $s_k(n)$ and $d_k(n)$ for $n = n_e + 1 \ldots n_{e+1}$ (see Figure 8.25). For IPD/OPD, the parameters at position n_{e-1} are needed in addition. n_e represents the start position for envelope e. In the case e=0, n_{-1} represents the last parameter position of the previous stereo frame. For the first stereo frame the IPD/OPD parameters at position n_{-1} are initialized to zero. In the case frameclass == %1 (VAR_BORDERS), the border positions n_e are obtained by border_position[e]. In the case frameclass == %0 (FIX_BORDERS), the border positions n_e are obtained by means of

$$n_e = \left\lfloor \frac{numQMFSlots*(e+1)}{num\_env} \right\rfloor - 1, \qquad e = [0,\ldots,num\_env-1].$$

In subclause 8.6.4.6.3.1. replace:

If the number of stereo bands changes from 10,20 in the previous frame to 34 in the current frame, the coefficients $h_{11}(b)$, $h_{12}(b)$, $h_{21}(b)$, and $h_{22}(b)$ at the end of the previous frame are mapped from 20 to 34 stereo bands according to Table 8.45 (by substituting idx_b by $h_{ij}(b)$, where ij is 11, 12, 21, or 22) prior to further processing as defined in subclause 8.6.4.6.3 and the IPD/OPD smoothing state variables are reset, i.e., $opd(b,n_{e-1}) = 0$, $ipd(b,n_{e-1}) = 0$, $opd(b,n_e) = 0$, and $ipd(b,n_e) = 0$. The frequency resolution of the hybrid QMF analysis filterbank (see subclause 8.6.4.3) is changed instantaneously to the 34 stereo band configuration. The state variables of the decorrelation process are reset to zero (see Table 8.47).

If the number of stereo bands changes from 34 in the previous frame to 10,20 in the current frame, the coefficients $h_{11}(b)$, $h_{12}(b)$, $h_{21}(b)$, and $h_{22}(b)$ at the end of the previous frame are mapped from 34 to 20 stereo bands according to Table 8.46 (by substituting idx_b by $h_{ij}(b)$, where ij is 11, 12, 21, or 22) prior to further processing as defined in subclause 8.6.4.6.3 and the IPD/OPD smoothing state variables are reset, i.e., $opd(b,n_{e-1}) = 0$, $ipd(b,n_{e-1}) = 0$, $opd(b,n_e) = 0$, and $ipd(b,n_e) = 0$. The frequency resolution of the hybrid QMF analysis filterbank (see subclause 8.6.4.3) is changed instantaneously to the 20 stereo band configuration. The state variables of the decorrelation process are reset to zero (see Table 8.47).

with:

If the number of stereo bands changes from 10,20 in the previous frame to 34 in the current frame, the coefficients $h_{11}(b)$, $h_{12}(b)$, $h_{21}(b)$, and $h_{22}(b)$ at the end of the previous frame are mapped from 20 to 34 stereo bands according to Table 8.45 (by substituting idx$_b$ by $h_{ij}(b)$, where ij is 11, 12, 21, or 22). Then the coefficients $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for the end of the previous frame are derived according to the four equations given in subclause 8.6.4.6.3 prior to further processing as defined in subclause 8.6.4.6.4. The IPD/OPD smoothing state variables are reset, i.e., $opd(b,n_{e-1})=0$, $ipd(b,n_{e-1})=0$, $opd(b,n_e)=0$, and $ipd(b,n_e)=0$. The frequency resolution of the hybrid QMF analysis filterbank (see subclause 8.6.4.3) is changed instantaneously to the 34 stereo band configuration. The state variables of the decorrelation process are reset to zero (see Table 8.47).

If the number of stereo bands changes from 34 in the previous frame to 10,20 in the current frame, the coefficients $h_{11}(b)$, $h_{12}(b)$, $h_{21}(b)$, and $h_{22}(b)$ at the end of the previous frame are mapped from 34 to 20 stereo bands according to Table 8.46 (by substituting idx$_b$ by $h_{ij}(b)$, where ij is 11, 12, 21, or 22). Then the coefficients $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for the end of the previous frame are derived according to the four equations given in subclause 8.6.4.6.3 prior to further processing as defined in subclause 8.6.4.6.4. The IPD/OPD smoothing state variables are reset, i.e., $opd(b,n_{e-1})=0$, $ipd(b,n_{e-1})=0$, $opd(b,n_e)=0$, and $ipd(b,n_e)=0$. The frequency resolution of the hybrid QMF analysis filterbank (see subclause 8.6.4.3) is changed instantaneously to the 20 stereo band configuration. The state variables of the decorrelation process are reset to zero (see Table 8.47).

In subclause 8.6.4.6.4. replace:

The intermediate values for $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ at positions $n = n_e + 1 \ldots n_{e+1}$ are obtained by means of linear interpolation conforming to.

$$H_{11}(k,n) = H_{11}(k,n_e) + (n-n_e)\frac{H_{11}(k,n_{e+1}) - H_{11}(k,n_e)}{n_{e+1}-n_e}$$
$$H_{12}(k,n) = H_{12}(k,n_e) + (n-n_e)\frac{H_{12}(k,n_{e+1}) - H_{12}(k,n_e)}{n_{e+1}-n_e}$$
$$H_{21}(k,n) = H_{21}(k,n_e) + (n-n_e)\frac{H_{21}(k,n_{e+1}) - H_{21}(k,n_e)}{n_{e+1}-n_e}.$$
$$H_{22}(k,n) = H_{22}(k,n_e) + (n-n_e)\frac{H_{22}(k,n_{e+1}) - H_{22}(k,n_e)}{n_{e+1}-n_e}$$

with:

The intermediate values for $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ at positions $n = n_e + 1 \ldots n_{e+1}$ are obtained by means of linear interpolation conforming to.

$$\begin{aligned}
H_{11}(k,n) &= H_{11}(k,n_e) + (n-n_e)\frac{H_{11}(k,n_{e+1}) - H_{11}(k,n_e)}{n_{e+1}-n_e}\\
H_{12}(k,n) &= H_{12}(k,n_e) + (n-n_e)\frac{H_{12}(k,n_{e+1}) - H_{12}(k,n_e)}{n_{e+1}-n_e}\\
H_{21}(k,n) &= H_{21}(k,n_e) + (n-n_e)\frac{H_{21}(k,n_{e+1}) - H_{21}(k,n_e)}{n_{e+1}-n_e}\\
H_{22}(k,n) &= H_{22}(k,n_e) + (n-n_e)\frac{H_{22}(k,n_{e+1}) - H_{22}(k,n_e)}{n_{e+1}-n_e}
\end{aligned}.$$

Special cases:

a) For the first region of a stereo frame (see subclause 8.6.4.4), with $n = 0 \ldots n_0 - 1$ the following applies:

$$\begin{aligned}
H_{11}(k,n) &= H_{11}(k,n_{-1}) + n\frac{H_{11}(k,n_0) - H_{11}(k,n_{-1})}{n_0}\\
H_{12}(k,n) &= H_{12}(k,n_{-1}) + n\frac{H_{12}(k,n_0) - H_{12}(k,n_{-1})}{n_0}\\
H_{21}(k,n) &= H_{21}(k,n_{-1}) + n\frac{H_{21}(k,n_0) - H_{21}(k,n_{-1})}{n_0}\\
H_{22}(k,n) &= H_{22}(k,n_{-1}) + n\frac{H_{22}(k,n_0) - H_{22}(k,n_{-1})}{n_0}
\end{aligned},$$

where $H_{xx}(k,n_{-1})$ represents the $H_{xx}(k,n_{num\_env-1})$ coefficients obtained from the previous stereo frame. Note that for the first stereo frame $H_{xx}(k,n_{-1})$ is initialized to zero.

b) For the last region of a stereo frame (see 8.6.4.4) with $n = n_{num\_env-1} \ldots numQMFSlots - 1$ the following applies:

$$\begin{aligned}
H_{11}(k,n) &= H_{11}(k,n_{num_env-1})\\
H_{12}(k,n) &= H_{12}(k,n_{num_env-1})\\
H_{21}(k,n) &= H_{21}(k,n_{num_env-1})\\
H_{22}(k,n) &= H_{22}(k,n_{num_env-1})
\end{aligned}.$$

In subclause 8.6.4.6.3.2. replace:

In the case IPD and OPD are enabled as indicated by (enable_ipdopd==1) the following procedure is applied. First the IPD and OPD values are smoothed over time according to

$$\begin{aligned}
\varphi_{opd}(b) &= \angle\left\{\frac{1}{4}\exp\left(j\cdot opd(b,n_{e-1})\right) + \frac{1}{2}\exp\left(j\cdot opd(b,n_e)\right) + \exp\left(j\cdot opd(b,n_{e+1})\right)\right\}\\
\varphi_{ipd}(b) &= \angle\left\{\frac{1}{4}\exp\left(j\cdot ipd(b,n_{e-1})\right) + \frac{1}{2}\exp\left(j\cdot ipd(b,n_e)\right) + \exp\left(j\cdot ipd(b,n_{e+1})\right)\right\}
\end{aligned}.$$

with:

In the case IPD and OPD are enabled as indicated by (enable_ipdopd==1) the following procedure is applied. First the IPD and OPD values are smoothed over time according to

$$\begin{aligned}\varphi_{opd}(b) &= \angle\left\{\frac{1}{4}\exp\big(j\cdot opd(b,e-1)\big)+\frac{1}{2}\exp\big(j\cdot opd(b,e)\big)+\exp\big(j\cdot opd(b,e+1)\big)\right\}\\ \varphi_{ipd}(b) &= \angle\left\{\frac{1}{4}\exp\big(j\cdot ipd(b,e-1)\big)+\frac{1}{2}\exp\big(j\cdot ipd(b,e)\big)+\exp\big(j\cdot ipd(b,e+1)\big)\right\}\end{aligned}.$$

In subclause 8.6.4.6.3.2, replace:

Finally, in order to get to $H_{11}(k,n_{e+1})$, $H_{12}(k,n_{e+1})$, $H_{21}(k,n_{e+1})$ and $H_{22}(k,n_{e+1})$, the following equations are applied.

$$\begin{aligned}H_{11}(k,n_{e+1}) &= h_{11}(b(k))\cdot\exp\big(j\varphi_1(b(k))\big)\\ H_{12}(k,n_{e+1}) &= h_{12}(b(k))\cdot\exp\big(j\varphi_2(b(k))\big)\\ H_{21}(k,n_{e+1}) &= h_{21}(b(k))\cdot\exp\big(j\varphi_1(b(k))\big)\\ H_{22}(k,n_{e+1}) &= h_{22}(b(k))\cdot\exp\big(j\varphi_2(b(k))\big)\end{aligned},$$

where Table 8.48 and Table 8.49 are used to translate from parameter indexing to subband indexing. For indices denoted with a *, we use:

$$\begin{aligned}H_{11}(k,n_{e+1}) &= h_{11}(b(k))\cdot\exp\big(-j\varphi_1(b(k))\big)\\ H_{12}(k,n_{e+1}) &= h_{12}(b(k))\cdot\exp\big(-j\varphi_2(b(k))\big)\\ H_{21}(k,n_{e+1}) &= h_{21}(b(k))\cdot\exp\big(-j\varphi_1(b(k))\big)\\ H_{22}(k,n_{e+1}) &= h_{22}(b(k))\cdot\exp\big(-j\varphi_2(b(k))\big)\end{aligned}.$$

with:

Second, the vectors $h_{11}(b)$, $h_{12}(b)$, $h_{21}(b)$, $h_{22}(b)$ are modified according to:

$$\begin{aligned}h_{11}(b) &= h_{11}(b)\cdot\exp\big(j\varphi_1(b)\big)\\ h_{12}(b) &= h_{12}(b)\cdot\exp\big(j\varphi_2(b)\big)\\ h_{21}(b) &= h_{21}(b)\cdot\exp\big(j\varphi_1(b)\big)\\ h_{22}(b) &= h_{22}(b)\cdot\exp\big(j\varphi_2(b)\big)\end{aligned}.$$

In order to obtain $H_{11}(k,n_{e+1})$, $H_{12}(k,n_{e+1})$, $H_{21}(k,n_{e+1})$ and $H_{22}(k,n_{e+1})$ the following equations are used

$$\begin{aligned}H_{11}(k,n_{e+1}) &= h_{11}(b(k))\\ H_{12}(k,n_{e+1}) &= h_{12}(b(k))\\ H_{21}(k,n_{e+1}) &= h_{21}(b(k))\\ H_{22}(k,n_{e+1}) &= h_{22}(b(k))\end{aligned},$$

where *b*(*k*) is defined in Table 8.48 and Table 8.49. For indices denoted with a * the following equations are used

$$\begin{aligned} H_{11}(k, n_{e+1}) &= h_{11} * (b(k)) \\ H_{12}(k, n_{e+1}) &= h_{12} * (b(k)) \\ H_{21}(k, n_{e+1}) &= h_{21} * (b(k)) \\ H_{22}(k, n_{e+1}) &= h_{22} * (b(k)) \end{aligned},$$

where $h_{xx}*$ represents the complex conjugate of h_{xx}.

In subclause 8.6.4.6.5. replace:

In the case the parameters are to be held, two situations are distinguished. If enable_ipdopd==%1, the four vectors $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for all n=[0,…, *numQMFSlots*-1], are copied from those same four vectors at position n=*numQMFSlots*-1 in the previous ps_data() element. If enable_ipdopd==%0, the four vectors $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for all n=[0,…, *numQMFSlots*-1], are set to the four vectors $h_{11}(k,n)$, $h_{12}(k,n)$, $h_{21}(k,n)$ and $h_{22}(k,n)$ respectively, where n=*numQMFSlots*-1 in the previous ps_data() element.

with:

In the case the parameters are to be held, two situations are distinguished. If enable_ipdopd==%1, the four vectors $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for all n=[0,…, *numQMFSlots*-1], are copied from those same four vectors at position n=*numQMFSlots*-1 in the previous ps_data() element. If enable_ipdopd==%0, the four vectors $H_{11}(k,n)$, $H_{12}(k,n)$, $H_{21}(k,n)$ and $H_{22}(k,n)$ for all n=[0,…, *numQMFSlots*-1], are set to the four vectors $h_{11}(b(k))$, $h_{12}(b(k))$, $h_{21}(b(k))$ and $h_{22}(b(k))$ respectively, where n=*numQMFSlots*-1 in the previous ps_data() element.

In subclause 8.A.3 after the paragraph on decorrelator reset for k >= k_{max}, insert the following paragraph:

If no ps_data() element was present in the previous frame, a full reset of the decorrelator state variables is performed by forcing the states

$$\begin{aligned} d_k(n) &= 0 \\ s_k(n) &= 0 \end{aligned},$$

where $n < n_e$, $0 \le k < NR\_BANDS$, and n_e is the first sample in the current stereo frame.

In 8.B.1, replace caption and Table headings:

Table 8.B.17 – huff_iid_df[0] and huff_iid_dt[0]

Index	huff_iid_df[0]	huff_iid_dt[0]	Index	huff_iid_df[0]	huff_iid_dt[0]

with:

Table 8.B.17 – huff_iid_df[1] and huff_iid_dt[1]

Index	huff_iid_df[1]	huff_iid_dt[1]	Index	huff_iid_df[1]	huff_iid_dt[1]

In 8.B.1, replace caption:

Table 8.B.18 – huff_iid_df[1] and huff_iid_dt[1]

Index	huff_iid_df[1]	huff_iid_dt[1]

with:

Table 8.B.18 – huff_iid_df[0] and huff_iid_dt[0]

Index	huff_iid_df[0]	huff_iid_dt[0]

In 8.C.8.1, replace:

This frequency of multiplied by a pitch scale factor and used in the continuous phase calculation.

with:

This frequency is multiplied by a pitch scale factor and used in the continuous phase calculation.

Create annex D for 8.C.8. In 8.C.8, replace 8.C.8 by 8.D and create new Annex D header.