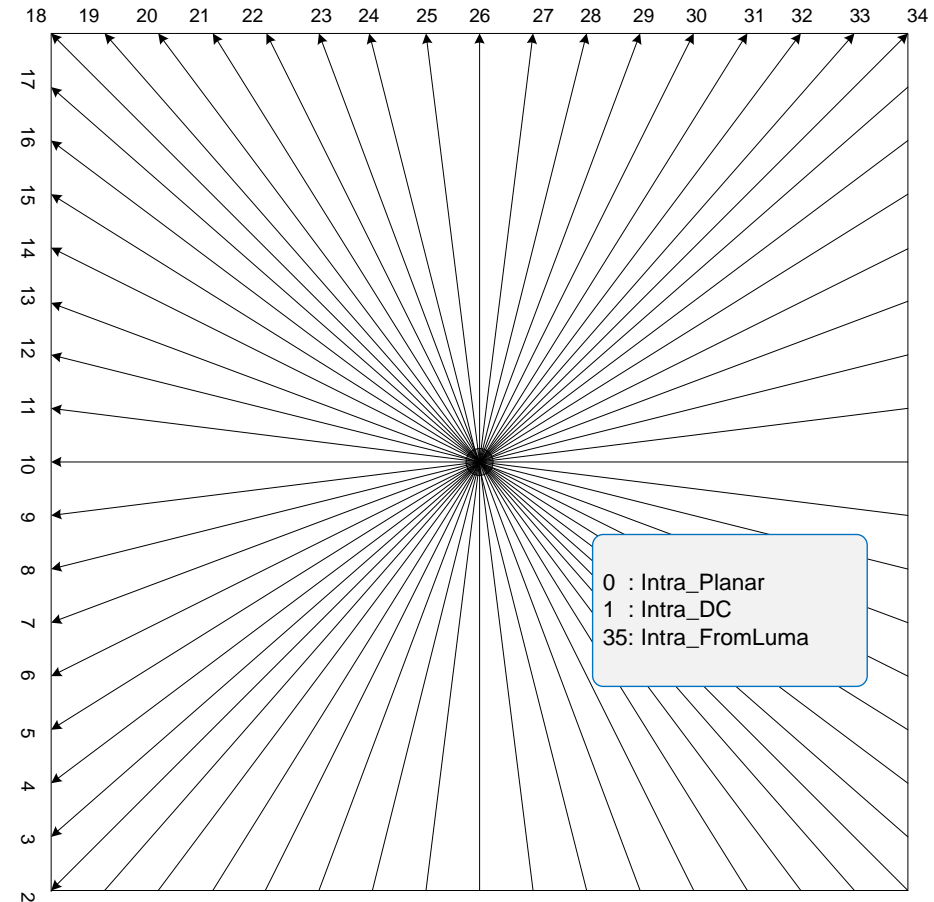
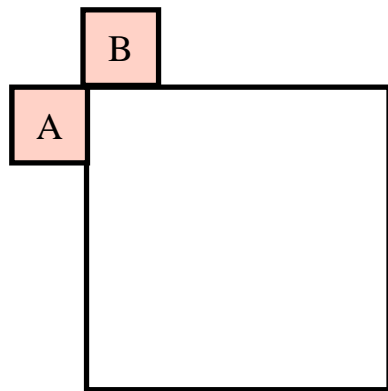


Bug fix to Ticket 366 on incorrect definition of intra luma prediction mode of I_PCM (JCTVC-I0033)

Keiichi Chono
NEC Corporation

Background: Intra luma mode prediction

- MPMs are derived from intra luma modes of neighboring left and top PUs
- If neighboring PU is inter coded or not available, its intra luma mode is set equal to Intra_DC (mode # 1).



Ticket 366

Bug in Intra luma mode prediction in HM

- Intra luma mode of I_PCM in HM is initialized with mode # 2.
- Intra luma mode prediction from I_PCM results in “Horizontal-8” instead of “Intra_DC” since mode # 2 is no longer Intra_DC.

Suggested fix in HM

- Intra luma mode of I_PCM in HM is initialized with Intra_DC (mode # 1).
- Intra luma mode prediction from I_PCM is set equal to Intra_DC (mode # 1)

Proponents agreed that “Horizontal-8 for I_PCM” is a bug and “Intra_DC for I_PCM” is a correct one.

Additional suggestion to Ticket366

- Specify intra mode for I_PCM in text as well:
 - Define intra mode of I_PCM in the semantics of pcm_flag.
 - Define intra luma mode prediction from I_PCM is set equal to with Intra_DC in the 8.4.1 Derivation process for luma intra prediction mode.

Suggested change is addition of two sentences; they are inspected by Canon and Sony.

Conclusions

- Fix HM according to Ticket 366
 - ✓ Intra luma mode of I_PCM is “Intra_DC” not “Horizontal - 8”.
- Specify intra mode of I_PCM in text in order to avoid the ambiguity on intra mode of I_PCM

Empowered by Innovation

NEC