

Figures 1-4 show some exemplary coded depth maps with VSO turned on and off for comparison. Case with VSO turned on has significant artifacts which may be considered undesirable. Of course such behavior can be observed in many more places.



Figure 1: Coded depth of "Undo_Dancer" sequence with VSO turned on (left) and off (right).

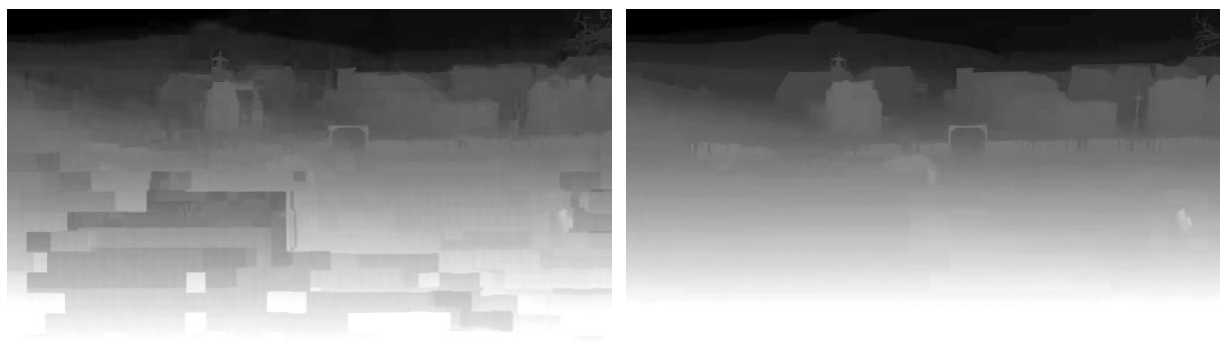


Figure 2: Coded depth of "GT_Fly" sequence with VSO turned on (left) and off (right).



Figure 3: Coded depth of "Balloons" sequence with VSO turned on (left) and off (right).

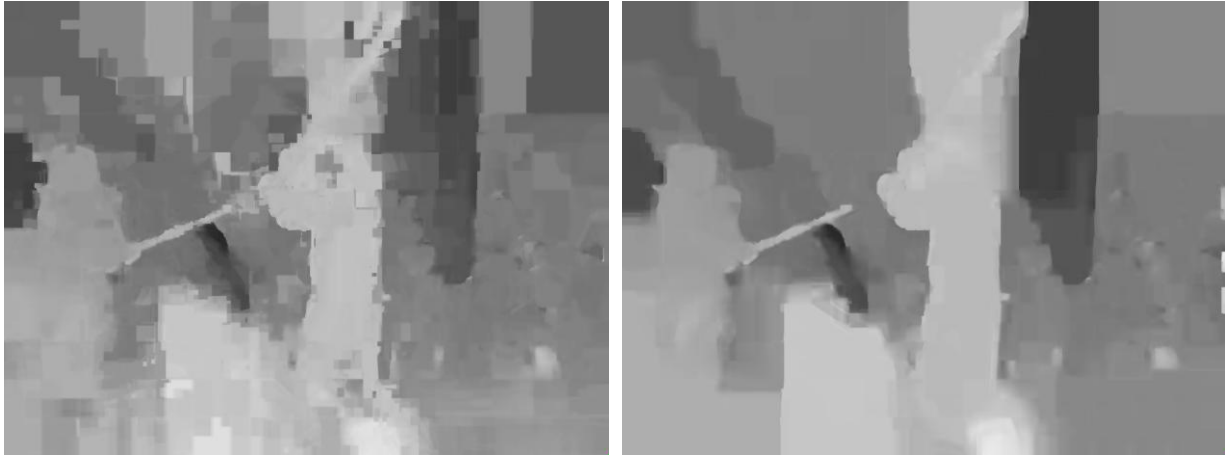


Figure 4: Coded depth of "Kendo" sequence with VSO turned on (left) and off (right).

4 Conclusions and recommendations

With the aim to study the behavior of individual coding tools, in particular those designed for depth coding, we propose to modify Common Test Conditions. It might be done in one of the following ways:

- a) Disable VSO in some CEs related to depth coding only.
- b) Disable VSO in CTC to allow good evaluation of depth coding tools.
- c) **Use two variants - VSO enabled and disabled - to allow wider perspective like in case of RDQ in HEVC.**

We believe that careful study on the conditions of the use of VSO in CTC would be beneficial for further standard development.

References

- [1] Krzysztof Wegner Heiko Schwarz, "Test Model under Consideration for HEVC based 3D video coding v3.0," ISO/IEC JTC1/SC29/WG11 MPEG, N12744 2012.
- [2] Dmytro Rusanovskyy Heiko Schwarz, "Common Test Conditions for 3DV experimentation," ISO/IEC JTC1/SC29/WG11 MPEG, N12745 2012.