

Redundant syntax signaling reduction for transform skip (JVET_F0031)

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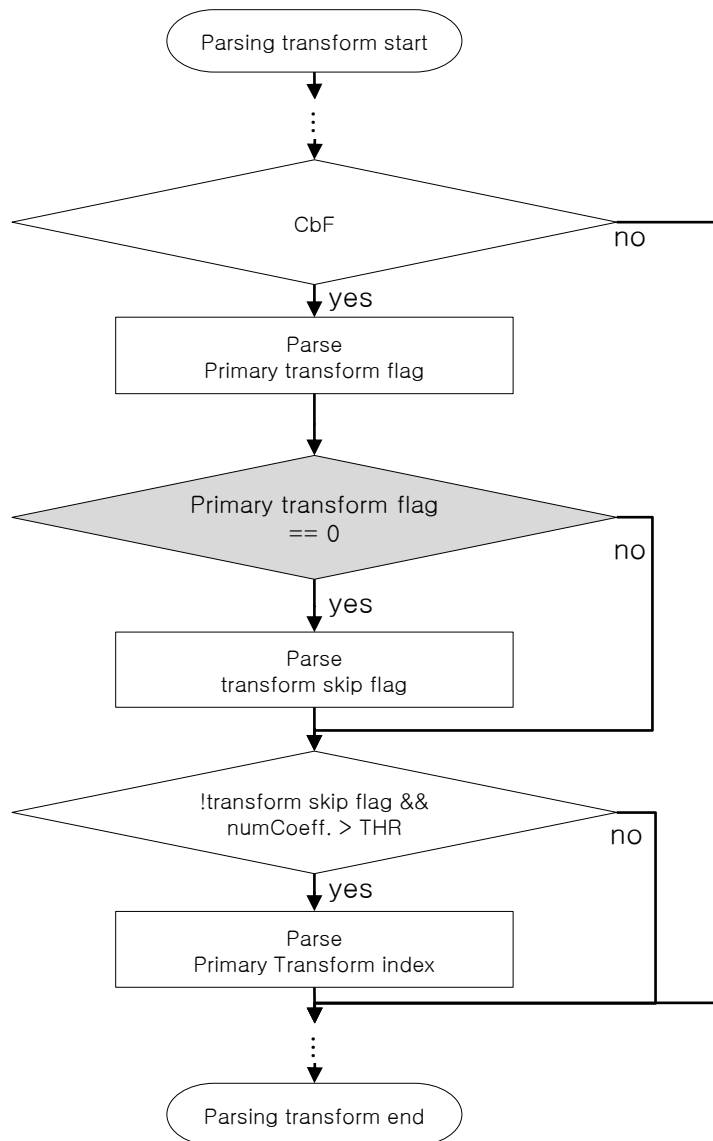
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Summary

- **Update contribution of JVET-E0037**
- **Remove redundant transform skip syntax signaling.**
- **2 concerns are raised in previous meeting**
 - Syntax position change
 - Signal primary transform flag only when transform skip flag is 0
 - Small coding loss at classA2 of RA cfg.
- **Proposed clean-up scheme**
 - Signal transform skip syntax only when primary transform flag is disabled.
(remove redundant signaling w/o any syntax position change)
 - No loss in every class including class A2
(-0.17% (AI), -0.16% (RA) BD-rate saving in class F)
- **Crosscheck**
 - JVET_F0079 (by b-com, Orange)

Proposed method



- Signal transform skip flag only when primary transform flag is 0.

Experimental results

All Intra

	Enc.	Dec.	BD-rate		
			Y	U	V
Class A1	100%	100%	0.00%	0.06%	-0.01%
Class A2	93%	100%	0.00%	-0.05%	-0.01%
Class B	97%	100%	-0.01%	0.03%	0.02%
Class C	99%	100%	-0.01%	0.00%	0.08%
Class D	99%	99%	-0.05%	0.00%	-0.13%
Class E	100%	100%	-0.01%	-0.08%	-0.09%
Class F	98%	100%	-0.17%	-0.13%	0.09%
Avg w/o F	98%	100%	-0.01%	0.00%	-0.02%

Random Access

	Enc.	Dec.	BD-rate		
			Y	U	V
Class A1	100%	100%	0.00%	-0.05%	0.04%
Class A2	101%	98%	-0.01%	-0.04%	0.02%
Class B	98%	100%	0.00%	0.14%	0.26%
Class C	101%	100%	-0.02%	0.10%	-0.10%
Class D	100%	100%	-0.08%	-0.27%	-0.19%
Class E					
Class F	100%	100%	-0.16%	-0.33%	-0.03%
Avg w/o F	100%	100%	-0.02%	-0.02%	0.02%

- Recommendation**

- It is recommended to adopt the proposed clean-up in next JEM.