

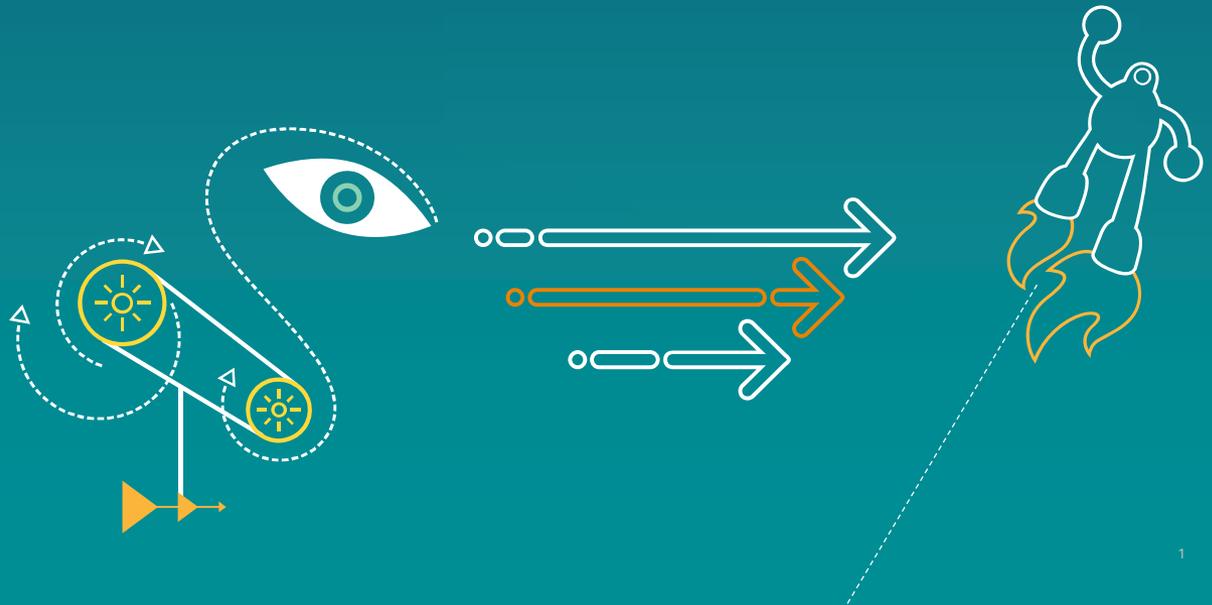
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**JCTVC-T0065**

**Non-CE1: Grouping palette indices at front**

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# Background

- Grouping of bypass bins is beneficial for throughput
  - HEVC coefficient coding
  - HEVC intra prediction mode coding for  $N \times N$
- Palette
  - Palette indices are coded in bypass mode
  - Coding of palette indices is interleaved with coding of palette run-type flag and run coding which are context coded

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# Proposal

- Group all the indices in the front of the block
  - Before sending `palette_run_type_flag` and run values.
- Signalling
  - Number of palette indices
  - Value of palette indices
  - last occurrence of palette run type

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# Signalling

- **Number of indices**
  - (Number of indices – indexMax) is signalled using `xWriteCoefRemainExGolomb` with `cParam = 2 + indexMax/6`
- **Value of palette indices**
  - No change
- **Last occurrence of palette run type**
  - Avoid sending the last palette run

# BD-rate results for All-Intra lossy configuration

Group + 'palette share removal M1' (T0064)

	All Intra		
	G/Y	B/U	R/V
RGB, text & graphics with motion, 1080p & 720p	0.0%	0.1%	0.1%
RGB, mixed content, 1440p & 1080p	-0.1%	0.0%	0.0%
RGB, Animation, 720p	0.0%	0.0%	0.0%
RGB, camera captured, 1080p	0.0%	0.0%	0.0%
YUV, text & graphics with motion, 1080p & 720p	0.0%	0.1%	0.1%
YUV, mixed content, 1440p & 1080p	-0.2%	-0.2%	-0.1%
YUV, Animation, 720p	0.0%	0.1%	0.0%
YUV, camera captured, 1080p	0.0%	0.0%	0.0%
Enc Time[%]		111%	
Dec Time[%]		108%	

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# Conclusions

- Grouping of bypass bins related to index coding without loss in coding efficiency