M17615 - Newspaper sequence - Results of 3DV/FTV Exploration Experiment EE4

Krzysztof Klimaszewski
Olgierd Stankiewicz
Krzysztof Wegner

team supervisor: ***Marek Domański***

Chair of Multimedia Telecommunications and Microelectronics
Poznań University of Technology, Poland

April, 2010, Dresden

EE 4

- JMVM 5.0.6
- GOP length was set to 16
- Targeted bitrates 0.375, 0.75, 1.25, 2 Mbps for 2 view case
- QP – Quantization index for views
- QD – Quantization index for depth maps

Quantization parameters

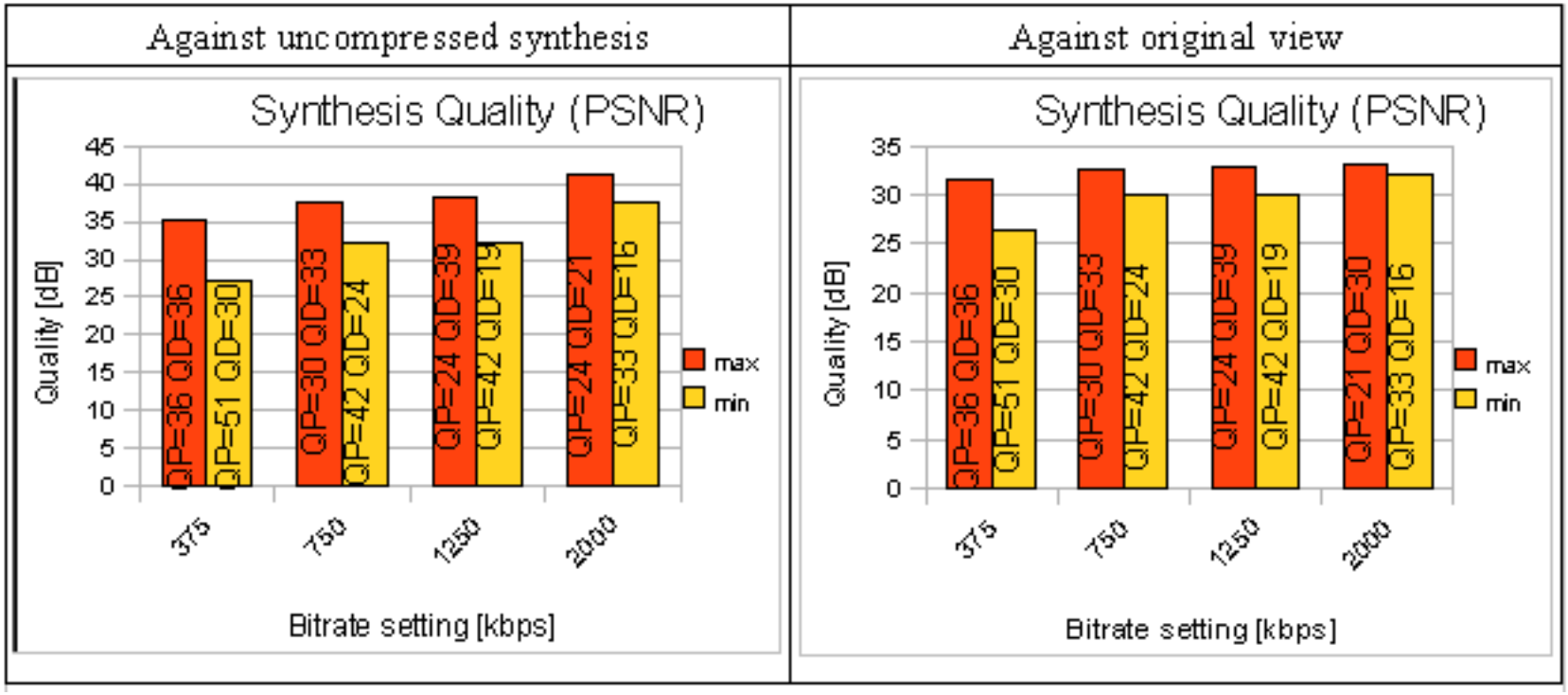
- Selected QP and QD indexes pairs which meet targeted bitrate

Bitrate	QP-QD pairs selected
375 kbps	36-39, 51-30, 48-30, 39-33, 45-30, 36-36, 33-51
750 kbps	30-33, 42-24, 33-27
1.25 Mbps	24-42, 33-21, 42-19, 24-39
2 Mbps	33-16, 21-33, 24-21, 21-30

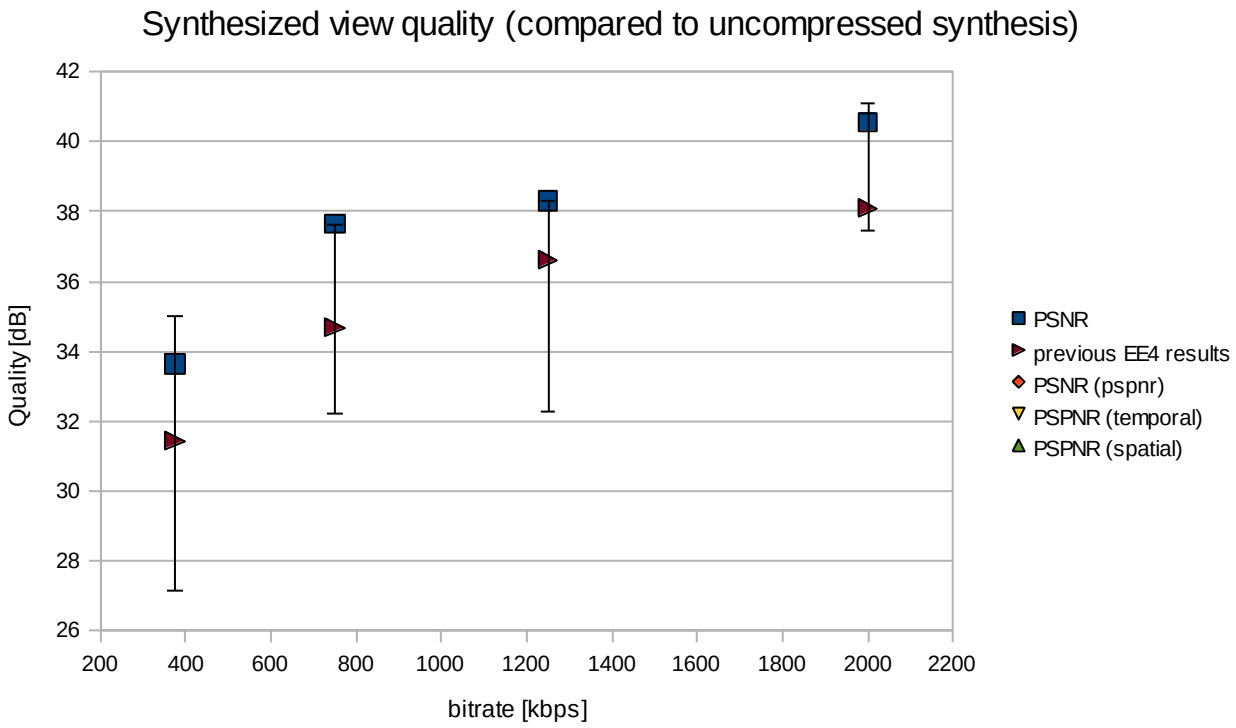
Results – 1250 kbps

Bitrate [kbps]	QP	QD	against uncompressed synthesis				against original view			
			PSNR [dB]	PSNR (pspnr) [dB]	PSPNR temporal [dB]	PSPNR spatial [dB]	PSNR [dB]	PSNR (pspnr) [dB]	PSPNR temporal [dB]	PSPNR spatial [dB]
1222	24	42	37,48				32,61			
1226	33	21	37,26				32,21			
1245	42	19	32,26				29,98			
1252	24	39	38,31				32,82			

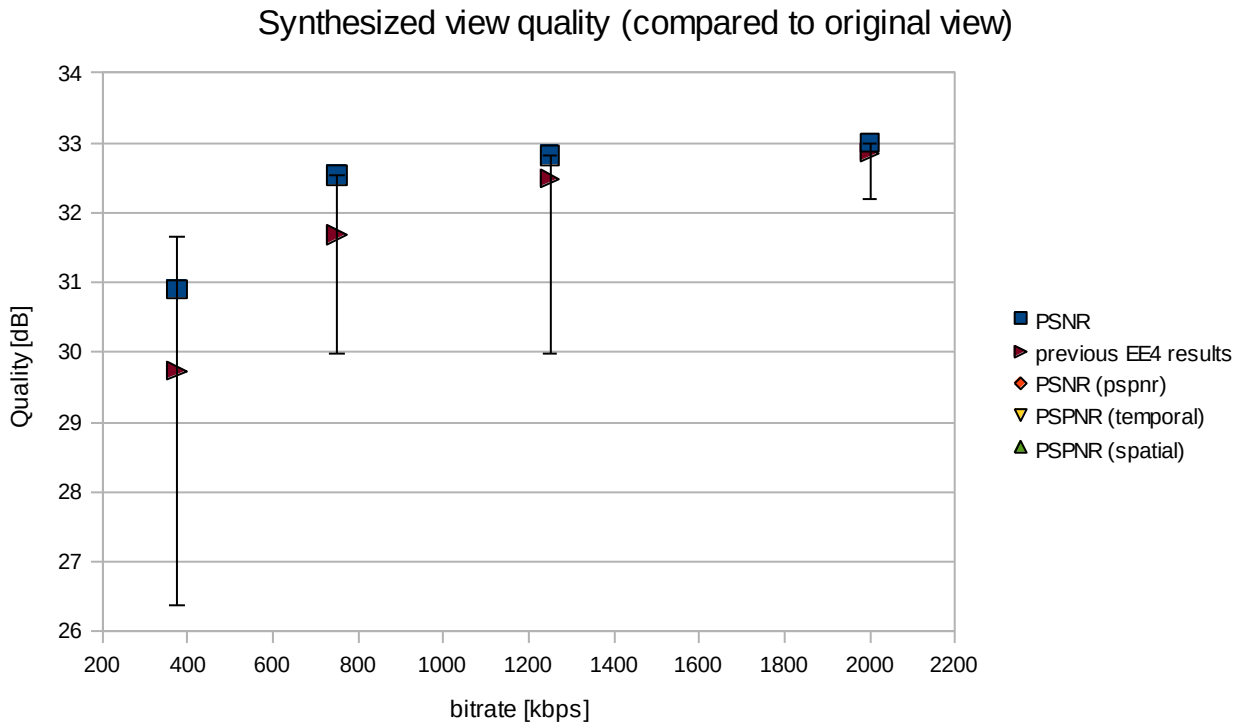
Results - PSNR



Results - summary



Results - summary



Summary

- Quality of synthesized view depends more on quality of compressed/decompressed image (QP parameter) than on quality of compressed/decompressed depth (QD).
- The usual approach of choosing the minimal QP does not give the best results in some cases.
- **Quality is better than for previous depth maps.**