

UnB-AVQ-2013 Database

DIGITAL SIGNAL PROCESSING GROUP (Grupo de Processamento Digital de Sinais, GPDS)

University of Brasília (UnB)

Citation

The **UnB-AVQ-2013** database is available to the research community free of charge. If you use it in your research, we kindly ask that you to cite our paper listed below:

Martinez, Helard B, and Mylène CQ Farias. "Full-reference audio-visual video quality metric." *Journal of Electronic Imaging* 23.6 (2014).

Martinez, Helard B, and Mylène CQ Farias. "A no-reference audio-visual video quality metric." *Signal Processing Conference (EUSIPCO), 2014 Proceedings of the 22nd European. IEEE, 2014.*

Contact Information

Please contact Helard Martinez (helardb@unb.br) or Mylène Farias (mylene@ieee.org) if you have any questions.

The investigators in the research are:

- Helard Martinez (helardb@unb.br) - University of Brasilia
- Mylène C. Q. Farias (mylene@ieee.org) - University of Brasilia

Details about the database:

With the goal of promoting research in the audio-visual quality assessment area, we perform three psychophysical experiments and analyze their results. To generate the test sequences for these experiments, we start with original high definition video sequences with both audio and video components. For the first experiment, we consider only the video component of the sequences and compress them using a H.264 codec at different (video) bitrate values. For the second experiment, we consider only the audio component of the sequences and compress them using an MPEG-1 layer-3 codec, at different (audio) bitrate values. Finally, for the third experiment, we consider both the sequence video and audio components and compress them independently. Both test sequences and subjective scores are publicly.

For experiment I, each of the original video test sequences (no audio) was compressed using the H.264 codec. Four different bitrate values were used: 30, 2, 1, and 0.8 Mbps. This test design resulted in 6 (original sequences) x 4 (bit rate values) + 6 originals = 30 test conditions.

For experiment II, only the audio component of the videos was considered. The audio component was compressed using the MPEG-1 layer-3 coding standard. Three bitrate values were used: 128, 96, and 48 kbps. This test design resulted in 6 (original sequences) x 3 (bit rate values) + 6 originals = 24 test conditions.

For experiment III, both audio and video components of the test sequences were compressed. The video components were compressed with H.264, using the same bitrate values used in experiment I (30, 2, 1, and 0.8 Mbps). The audio components were compressed with MPEG-1 layer-3 coding standard, using the same bitrate values used in experiment II (128, 96, and 48 kbps). Considering the three bitrate values of the audio components and the four bitrate values of the video components (3 audio bitrates x 4 video bitrates) for all six originals, this resulted in a total of $3 \times 4 \times 6 + 6$ originals = 78 test conditions. Table 1 presents a summarized description of all three datasets along with some information regarding the subjective experiments.

File List:

- Exp1\ Test Sequences for UnB-AVQ-2013 Experiment 1
- Exp2\ Test Sequences for UnB-AVQ-2013 Experiment 2
- Exp3\ Test Sequences for UnB-AVQ-2013 Experiment 3
- UnB-AVQ-2013.pdf Brief description of the UnB-AVQ-2013 database
- UnB-AVQ-2013-Experiment1.csv MOS values for UnB-AVQ-2013 Experiment 1
- UnB-AVQ-2013-Experiment2.csv MOS values for UnB-AVQ-2013 Experiment 2
- UnB-AVQ-2013-Experiment3.csv MOS values for UnB-AVQ-2013 Experiment 3
- Readme.pdf This file

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