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Title	**[MIV] New natural content – MartialArts**
Source	**PUT, ETRI**
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Abstract

The document presents a description of a new natural test sequence provided by PUT and ETRI: MartialArts. The sequence was captured by a multicamera system containing 15 GoPro cameras located on an arc. Four best reference pose traces are attached to this document, two synthesized from 97 frames, and two synthesized from one frame. Different versions of posetraces were obtained using depth maps estimated with different parameters of IVDE. It is recommended to include the MartialArts sequence in the MIV CTC after testing its quality by compressing it using the newest TMIV.

1 Sequence characteristics

15 GoPro Hero4 cameras placed in stereopairs located on an arc (radius: 4 m).
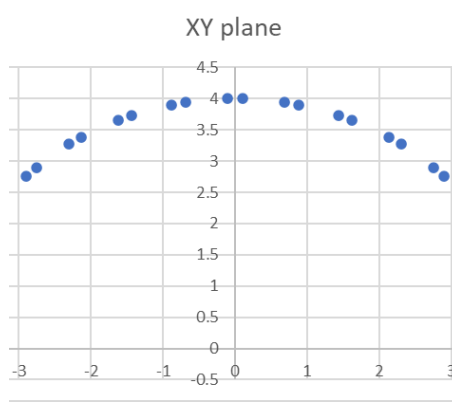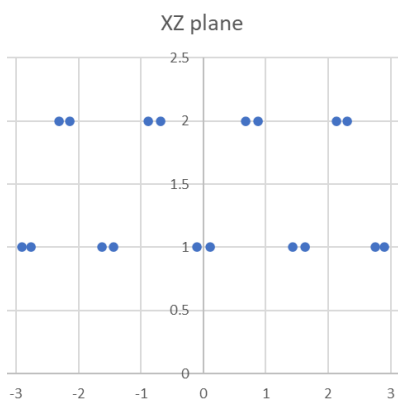
Resolution: 1920 × 1080
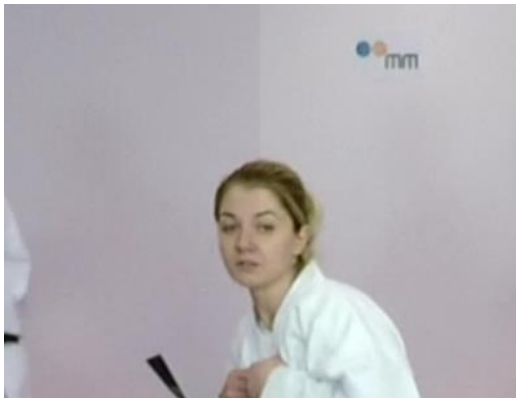
Number of frames: 97

Frames per second: 25

Bit depth: 8 (texture) and 16 (depth)

Sequences were undistorted:

and color-corrected using Poznan Color Refinement software [1]:

Depth maps were estimated using IVDE software [2], input textures were denoised using ffMPEG software:

Sequence view after first denoising   Texture after final denoising and color correction

Depth map corresponding to the view above   Depth map corresponding to the view above

2   Test material

Example of best reference pose traces were attached to this document.

Texture, depth maps, and camera parameters will be uploaded to the MPEG content server if requested.

3   Recommendation

We recommend including the proposed sequence into the MIV CTC after testing its quality by compressing it using the newest TMIV.

4   Acknowledgement

References

[1] A. Dziembowski, D. Mieloch, S. Różek and M. Domański, "Color Correction for Immersive Video Applications," in IEEE Access, vol. 9, pp. 75626-75640, 2021.

[2] Manual of IVDE 3.0, document ISO/IEC JTC1/SC29/WG4 MPEG2020/N0058, Online, Jan. 2021.