

The Long Term Detection & Tracking 2014 dataset .



The LTDT2014 dataset provides a Matlab/Octave evaluation kit and the dataset for performing objective evaluation of tracking systems.

The evaluation kit allows performing the experiments on the LTDT2014 dataset, which is composed of 6 color sequences taken from [1,2,3]: Motocross (2665), LiverRun (29700), NissanSkylineChase (3740), Carchase (9928), Volkswagen (8576), and Sitcom (4400). For a total of 59090 frames. The sequences taken from [2] are cropped from the synthetic superimposed text.

Besides object class variability, this dataset is intended to test the capability of trackers to learn without drifting (at the time of writing, we are not aware of any method in literature that could fully handle all these sequences).

In each sequence a single target is annotated by a bounding box. The initial bounding box can be chosen by the authors. A tracker can be freely initialized on any part of the object, a bounding box normalization will be applied before comparisons. The tracker's task is to track the selected object throughout the remainder of the sequence. The tracker is required to output the current estimate of the bounding box immediately after processing a given frame. The tracker outputs the per-frame list of bounding boxes into a designated file. The evaluation kit will check this file to evaluate the performance with respect to the ground truth and may also be enabled to save a video sequence with the tracker's bounding box superimposed. The tracking results obtained for these videos will be shown by the authors during the workshop.

References

- [1] Kalal, Zdenek, Krystian Mikolajczyk, and Jiri Matas. "Tracking-learning-detection." Pattern Analysis and Machine Intelligence, IEEE Transactions on 34.7 (2012): 1409-1422.
- [2] Lebeda, Karel, R. Bowden, and Jiri Matas. "Long-term tracking through failure cases." Vis. Obj. Track. Challenge VOT2013, In conjunction with ICCV2013 (2013).
- [3] Arnold W. M. Smeulders, Dung M. Chu, Rita Cucchiara, Simone Calderara, Afshin Dehghan, Mubarak Shah, "Visual Tracking: An Experimental Survey," IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 99, no. PrePrints, p. 1, , 2013